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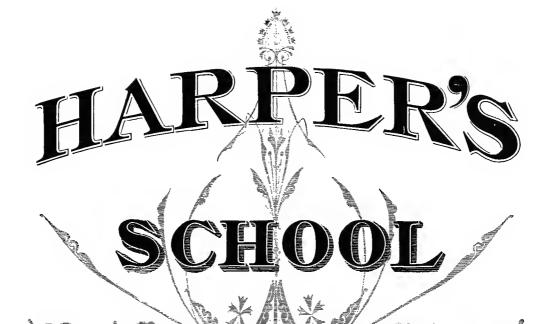
Harper's school geography.

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GEOGRAPHY



WITH MAPS AND ILLUSTRATIONS

PREPARED EXPRESSEY FOR THIS WORK

BY EMINENT AMERICAN ARTISTS

NEW YORK ·: · CINCINNATI ·: · CHICAGO

AMERICAN BOOK COMPANY

A. 42432



PUBLISHERS' ADVERTISEMENT.

In presenting to the public this work on geography, the publishers respectfully invite the attention of Boards of Education, teachers, and parents to the following statement of its plan and leading features:

The study of geography is now, much more than at any former period, an essential element in education. It is second in importance only to reading, writing, and rudimentary arithmetic. The newspaper is and must continue to be the chief source of that knowledge of current events which is indispensable to every intelligent person. Its telegrams and other items and articles necessarily assume that the reader possesses a knowledge of certain geographical facts. It is the aim of this work to present and impress these facts.

To this end the careful selection and arrangement of topics have been regarded as matters of prime necessity in order to insure such a unity of plan as to present a simple, yet practical, definite, and coherent view of the subject.

The geography of commerce has been made the leading line of thought, because commerce, domestic and foreign, is becoming more and more a dominant interest in the affairs of the leading nations of the world, and because no other department of the general subject presents in such bold relief their rivalries and mutual dependencies. It involves a systematic presentation of the resources and industries of countries as dependent upon climate, soil, mineral deposits, and other physical conditions. It also includes all important information concerning cities and towns as commercial, manufacturing, and mining centres, and an outline of the system of transportation, domestic and international. The tables of reference show the total imports and exports of all the maritime nations, and particularly the commerce of each of these countries with the United States.

The work is essentially in two distinct parts—a physical geography and a political geography. The physical geography is treated with sufficient fulness, and presents no difficulty greater than the description of a chain of mountains or of the course of a river. A systematic outline of this department will be found in the questions of the general review. Each of the two parts has a series of special maps, exercises, and descriptions. Each series is complete in itself,

and may be so taught if it be thought desirable. Again, by a difference in type and by the arrangement of the questions, each series presents the choice of a simple outline or a fuller course.

The questions are so clearly related to the maps and the text as to avoid the serious difficulties which frequently arise from obscurity in this connection. The cities and towns called for by the text are at once pointed out both by the prominence of the type and by a peculiar device of color which will be found upon the maps.

Among the many other original matters of great practical importance to pupils and teachers are the map showing the divisions and subdivisions of the United States, and the Industrial and Commercial Map of the United States, exhibiting the leading industries and resources of the country, and its various existing and proposed systems of transportation by railroad, coast lines, and interior water-ways, the whole for the first time so simply and clearly presented as to be easily committed to memory.

The definitions are few and brief, and, like the rest of the work, are expressed in the simplest language which the subject will allow.

The map-drawing exercises and the tabular reviews are simple and practical, and will commend themselves to teachers.

The perfect clearness and legibility of the maps and the character of the type used in the text prevent injury to the sight of the pupil and teacher.

In view of the limited time which can be given to geography in school, this treatise has been made as concise as possible, without limiting its comprehensiveness. This is not only very desirable in itself, but was made necessary by the large type and the great space given to the instructive pictorial illustrations. While great care has been taken to reject all matter not strictly relevant, it is believed that no other School Geography presents so many essential facts and principles in so few words.

The character of the type and the quality of the illustrations, maps, paper, and binding of this work leave it without a rival in the beauty and excellence of its mechanical execution.

The work in all its details shows that the author is a practical teacher, to whom the difficulties of the class-room are thoroughly familiar.

AMERICAN BOOK COMPANY.

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MATHEMATICAL GEOGRAPHY.

I.

THE EARTH: ITS SHAPE AND SIZE.

- 1. **Geography** is a description of the surface of the earth, and of its countries and their inhabitants.
- 2. **The shape** of the earth is nearly that of a ball, globe, or sphere.

The earth does not appear to be shaped like a ball, but looks like a large plain, stretching out in every direction. The reason of this is that we see only a small part of it at one time.

Note.—To ensure correct conceptions on the part of the pupil, it is recommended that the lessons on Mathematical Geography be illustrated by means of a globe.

3. We know that the earth is shaped like a ball from the following facts:

First. Ships have sailed around it.

Second. When a ship sails away from the land, the hull or body first disappears from sight, then the sails, and last the tops of the masts.

When a ship is coming in from sea, the tops of the masts are seen first, then the sails, and lastly the hull or body. If the surface of the water were flat, the hull would be seen as soon as the masts.

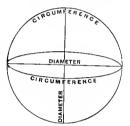
In like manner, in travelling across broad plains we see the tops of distant mountains long before their bases are visible.



Third. The shadow which the earth casts upon the moon is always circular.

A ball or sphere being the only body that always casts a circular shadow, we conclude that the earth has the shape of a ball or sphere.

4. A diameter of a sphere is any straight line drawn



through the centre from surface to surface.

The diameter of the earth is nearly eight thousand miles.

5. A circumference of a sphere is the greatest distance around it.

The circumference of the earth is

nearly twenty-five thousand miles.

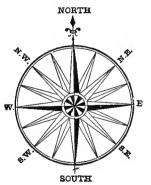
- 6. The surface of the earth contains nearly two hundred millions of square miles.
- 7. The horizon is that circle upon which the earth and the sky appear to meet.

That point of the horizon towards which your shadow falls at noon is called north.* The opposite point is called south. If you face the north, your right hand is to-



wards the east, and your left hand is towards the west.

8. North, east, south, and west are called the cardinal points of the horizon. The points midway between these



are called northeast, southeast, southwest, and northwest.

9. The compass is an instrument used by mariners and surveyors. It consists of a circular card representing the horizon and its points. Over the centre of the card is a magnetic needle, balanced on a pivot: this needle points towards the north.

Questions.-What does this section tell about?-1. What is geography?-2. What is the shape of the earth? How does the earth appear to us? Why is this? -3. What is the first fact by which we know that the earth is a globe? The second fact? The third fact?—4. What is a diameter of a sphere? How long is the earth's diameter?-5. What is a circumference of a sphere? How long is the earth's circumference?—6. How many square miles in the surface of the earth?—7. What is the horizon? Which way is north, south, etc.?—8. Which are the cardinal points? The points between these?-6. Describe the compass.

TT.

MOTIONS OF THE EARTH.

- 1. The earth has two constant motions, the daily and the annual.
- 2. The daily motion of the earth is its rotation on one of its diameters. The direction of the motion is from west to east: this causes the sun to appear to move from east to west. The sun appears to rise in the east because the place where we are is moving towards it; it appears to set in the west because the place where we are is moving from it.

The diameter on which the earth turns is called its axis. The time in which the earth turns on its axis is called a day.

- 3. The daily rotation causes the succession of day and night. Each place is carried into the sunlight, and then into the shade of the earth.
- 4. The poles are the points at the ends of the axis. One is called the North Pole, the other the South Pole.
- 5. The swiftness of the rotation has caused the earth to be slightly flattened at the poles, and to bulge out a little midway between them. A globe flattened at the poles is called an oblate spheroid. The length of the earth's axis, or shortest diameter, is 7899 miles; the longest diameter is 7925 miles. The greatest circumference is 24,899 miles.



NOTE.—The polar diameter is about one three-hundredth less than the equatorial.

- 6. The earth moves around the sun in a nearly circular path, called its orbit. The time in which the earth revolves around the sun is called a year. It contains nearly $365\frac{1}{4}$ days. This motion is called the **annual** revolution.
- 7. The axis of the earth is inclined to its orbit. inclination never changes.
- 8. The annual revolution of the earth and the inclination of its axis cause the change of the seasons.

Questions.-What does this section tell about?-1. How many motions has the earth? What are they?-2. What is the daily motion of the earth? In what direction is it? How does the sun appear to move? Why does it appear to rise and set? What is the axis of the earth? What is a day?—3. What is caused by the daily rotation of the earth?-4. What are the poles? What are they called?-5. What effect has the swiftness of the rotation? What name is given to the true shape of the earth? What is an oblate spheroid? How many miles difference between the longest and the shortest diameter? How long is the greatest circumference?—6. What other motion has the earth? What is the shape of its path? Its name? What is a year? How long is it?-7. What is the position of the earth's axis? Does the inclination change?—8. What cause the change of the seasons?

^{*} This is true only in the Northern Hemisphere.

III.

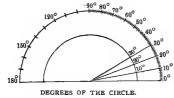
THE CIRCLES OF THE EARTH.

1. The circles of the earth* are lines imagined to be drawn on its surface.

These circles are of two kinds—great circles and small

- 2. A great circle is one that divides the earth into two equal parts. Each of these parts is called a hemisphere, which means a half-sphere.
- 3. A small circle is one that divides the earth into two unequal parts.
- 4. Every circle is divided into 360 equal parts called

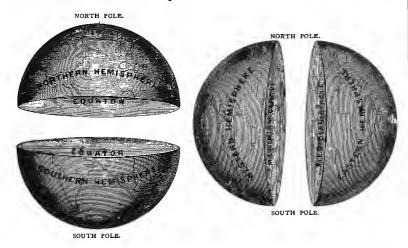
degrees; each degree is divided into 60 equal parts called minutes; and each minute into 60 equal parts called seconds.



The smaller the circle, the shorter are the degrees. Degrees

are marked o, minutes ', and seconds ". Thus twelve degrees, fifteen minutes, and ten seconds are written 12° 15′ 10″.

5. **The Equator** is that great circle which is midway between the poles. It divides the earth into a Northern and a Southern Hemisphere.



- 6. Meridian circles are those great circles which pass through the poles. Each divides the earth into an Eastern and a Western Hemisphere.
- 7. A meridian is half of a meridian circle, and extends from pole to pole.
- 8. Parallels are small circles parallel to the Equator. The principal parallels are the two tropics and the two polar circles.
- * In Geometry, a distinction is made between the circle and its boundary line or circumference. The circle is really the space or surface bounded by the circumference. This distinction is not necessary in Geography.

9. The tropics are those parallels which are $23\frac{1}{2}$ degrees from the Equator. The northern is called the

Tropic of Cancer, and the southern the Tropic of Capricorn.

10. The polar circles are those parallels which are $23\frac{1}{2}$ degrees from the poles. The northern is called the Arctic Circle, and the southern the Antarctic Circle.



THE CIRCLES OF THE EARTH

Questions (I.)-1. What are the circles of the earth? How many kinds of circles? What are they?—2. What is a great circle? What is a hemisphere?—3. What is a small circle?—4. How is every circle divided? How are degrees divided? How are minutes divided?-5. What is the Equator? Into what does it divide the earth?-6. What are meridian circles? Into what does each divide the earth?—7. What is a meridian?-8. What are parallels? Which are the principal parallels.-9. What are the tropics? Give the name of each?-10. What are the polar circles? Give the name of each?

(II.)—Read 32° 15′ 47"; 49° 11′ 37". Which is larger, a degree of the Equator or of a tropic? Why? Of the Equator or of a meridian? Why? Of a tropic or of the Arctic Circle? Why? Which is the greater, the Eastern Hemisphere or the Northern? Why? How many meridian circles may there be? How many Equators? How many parallels? How many meridians?

IV.

LATITUDE.—LONGITUDE.—ZONES.

- 1. Latitude is distance north or south from the Equator. It is measured, in degrees, on a meridian. Places between the Equator and the North Pole are in north latitude; those between the Equator and the South Pole are in south latitude; those on the Equator have no lati-The poles have the greatest possible latitude, which is 90 degrees.
- 2. Longitude is distance east or west from a selected meridian. It is measured, in degrees, on the Equator or any parallel. The selected meridian is called the first meridian.

The meridian in most common use is that which passes through Greenwich Observatory, near London. In the United States the meridian of Washington is sometimes used; in France that of Paris; in Germany that of Berlin; etc.

Places on the first meridian have no longitude. The greatest longitude is 180 degrees, east or west.

- A degree of any great circle measures 60 geographical miles, or about 69½ statute miles of the United States. A degree on the parallel of 60° is just half as long.
- 3. **Zones** are broad belts or divisions of the earth's surface parallel to the Equator. They are bounded by the tropics and the polar circles.

- 4. There are **five zones:** one Torrid, two Temperate, and two Frigid Zones.
- 5. **The Torrid Zone** extends from the Tropic of Cancer to the Tropic of Capricorn.

Torrid means hot. This zone is the hottest part of the earth, because the sun is always shining directly down upon some part of it. It is 47 degrees wide, or $23\frac{1}{2}$ degrees on each side of the Equator, and is the largest zone.

6. **The North Frigid Zone** extends from the Arctic Circle to the North Pole.

The South Frigid Zone extends from the Antarctic Circle to the South Pole.

Frigid means frozen. The Frigid Zones are the coldest parts of the earth, because the sun shines upon each of them during only a part of the year, and with very slanting rays. Each extends $23\frac{1}{2}$ degrees from the pole at its centre. They are the smallest, least important, and least known of the zones. The South Frigid Zone is not known to have one human inhabitant.

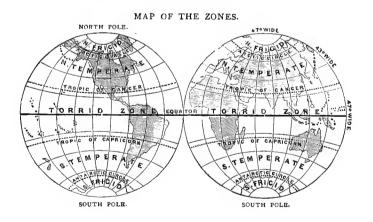
7. The North Temperate Zone extends from the Arctic Circle to the Tropic of Cancer.

The South Temperate Zone extends from the Antarctic Circle to the Tropic of Capricorn.

Temperate means moderate. Each of the Temperate Zones is 43 degrees wide. The North Temperate Zone is the most important portion of the world. It contains nearly three fourths of the human race.

Note.—The axis of the earth is inclined $23\frac{1}{2}$ degrees towards its orbit. This determines the breadth of the several zones, the tropics being $23\frac{1}{2}$ degrees from the Equator, and the polar circles being $23\frac{1}{2}$ degrees from the Poles.

The four seasons, spring, summer, autumn, and winter, are found only in the Temperate Zones.



Questions (I.)—1. What is latitude? How is it measured? On what? In what directions? What places are in north latitude? In south latitude? What places have no latitude? What places have the greatest latitude? How many degrees?—2. What is longitude? How is it measured? On what? In what directions? What is the name of the meridian from which longitude is reckoned? What places have no longitude? What is the greatest longitude a place can have?—3. What are zones? By what are they bounded?—4. How many zones are there? Name them.—5. Where is the Torrid Zone?—6. The North Frigid? The South Frigid?—7. The North Temperate Zone? The South Temperate Zone? Which zones have four seasons during the year?

(II.)—2. What meridian is in most common use? What meridian is sometimes used in the United States? In England? In France? In Germany?—3. How many miles in a degree of a great circle? On the parallel of 60°?—5. Which is the hottest

zone? Why? What does its name mean? How wide is it? What great circle passes through the middle of it?—6. Which zones are the coldest parts of the earth? Why? What does their name mean? What point in the centre of each? How wide are they?—7. How wide are the Temperate Zones? What does their name mean?—Which is the largest zone? The smallest? The hottest? The least important? Why? The most important? Why? Where are the coldest parts of the Temperate Zones? Where are the warmest parts?

V. GLOBES AND MAPS.

MAP OF THE WORLD.

160 120 80 40 0 40 80 120 150

ARCTIC OCEAN

10 PACIFIC

10

- 1. The surface of the earth may be represented by globes and maps.
- 2. **A globe** is a sphere representing the form of the earth, its circles, and the principal divisions of the land and water.
- 3. **A map** is a representation of the whole or a part of the earth's surface on a plane.
 - A plane is a flat surface. The surface of a sphere can not be exactly represented upon a plane. Small portions of the earth's surface can be more correctly represented upon maps than very large ones.
- 4. Parallels cross the map from side to side; meridians, from top to bottom. East is in the direction of the parallels towards the right; west, towards the left. North is in the direction of the meridians towards the top; south, towards the bottom.
- 5. Figures showing the latitude are placed on the sides of the map; those showing the longitude are placed at the top and the bottom.

Exception.—In the maps of the Eastern and Western Hemispheres the longitude is marked on the Equator.

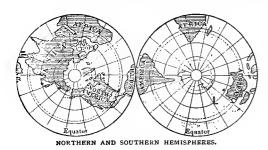
Questions (I.)—1. How may the surface of the earth be represented?—2. What is a globe?—3. What is a map?—4. How are parallels represented upon a map? How are meridians represented? Which way is east? West? North?—South?—5. Where are the figures showing the latitude placed? Those showing the longitude? What exception?

(II.)—3. What is a plane? Can the surface of a sphere be exactly represented upon a map? Why? (Experiment with the peel of half of an orange.) Which can be made the more accurate, a map of a large portion of the earth's surface or one of a small portion? Why? Which represents the earth with more exactness, a globe or a map? Why?

PHYSICAL GEOGRAPHY.

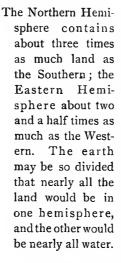
VT.

DIVISIONS OF THE LAND.



1. The surface of the earth consists of land and water. About one fourth is land, and about three fourths water.

WESTERN AND EASTERN HEMISPHERES.





2. The land sur-

face of the earth is divided into continents and islands.

- 3. A continent is a very large body of land.
- 4. There are six continents. Four are in the Eastern Hemisphere—Europe, Asia, Africa, and Australia. Two are in the Western Hemisphere—North America and South America.

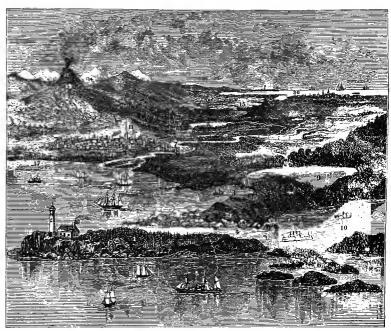
The three large continents of the Eastern Hemisphere are joined into one great land-mass called the Old World (see map on page 4). The united continents of the Western Hemisphere form the New World. It is so called because discovered only a few centuries ago. Some geographers call the Old World the Eastern Continent, and the New World the Western Continent or the American Continent.

5. An island is a body of land entirely surrounded by water.

Australia, the smallest continent, is much larger than the largest island. The chief distinction between a continent and an island is the difference in size.

- 6. An archipelago is a group of islands.
- 7. A peninsula is a body of land nearly surrounded by water.
 - 8. A cape is a point of land extending into the water.

 A mountainous cape is called a promontory. A cape is usually much smaller than a peninsula.



NATURAL DIVISIONS OF LAND AND WATER.

1.	Island.
2.	Peninsula.
3.	Bay.
4	C

Isthmus.
 Archipelas
 River.
 Delta.

9. Lake. 10. Sound. 11. Hill. 12. Crater Mountain.
 Mountain Range.
 Table-land.
 Plain.

17. Shore. 18. Cape. 19. Volcago. 20. Sea.

A coast or shore is the land bordering on the water. Coasts are often broken by peninsulas and capes.

9. An isthmus is a neck of land connecting two larger bodies of land.

Questions (I.)—1. Of what does the surface of the earth consist? How much is land? How much is water?—2. How is the land surface divided?—3. What is a continent?—4. How many continents are there? How many in the Eastern Hemisphere? Name them. How many in the Western Hemisphere? Name them.—5. What is an island?—6. What is an archipelago?—7. What is a peninsula?—8. What is a cape?—9. What is an isthmus?

(II.)—1. Which has the more land, the Northern Hemisphere or the Southern? How many times as much? The Eastern Hemisphere or the Western? How many times as much? What is meant by the land hemisphere?—4. What is meant by the Old World? What other name is given to it by some geographers? What is meant by the New World? Why so called? What other name has it?—5. How does the smallest continent compare with the largest island? What is the chief distinction between a continent and an island?—7. What is a promontory? What is the chief difference between a cape and a peninsula? What is a coast or shore? By what are coasts broken?

VII.

ELEVATIONS OF THE LAND.

1. The chief elevations of the land surface are mountains, table-lands or plateaus, and lowland plains.

Mountains and plateaus are sometimes called highlands. The height of elevations is reckoned from the surface or level of the sea.

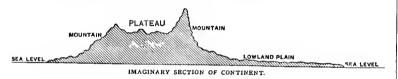
2. A mountain is a very high elevation of land.

If the elevation is not very high, it is usually called a hill. The summit of a mountain is its highest point; the base is its foot; the slopes are its sides.

3. A range or chain is a line of mountains or hills.

- 4. **A volcano** is a mountain which sends forth flames, melted rock, clouds of steam, ashes, or other heated substance, from an opening called a crater.
- 5. A table-land or plateau is a broad extent of high land.
 - Table-lands are often crossed or bordered by mountain ranges.

 The breadth of a mountain is generally less than that of a plateau.
- 6. A lowland plain is a broad extent of land not much above the level of the sea.
 - A valley is land between hills or mountains. A desert is a barren tract of land. An oasis is a low fertile spot in a desert.
- 7. The natural divisions of the land are continents and islands. Their shores have peninsulas, capes, and isthmuses; their surfaces have mountains, plateaus, and lowland plains.
 - If we imagine a division of land to be cut through from side to side and down to the level of the sea, the outline representing the edges of such a cut is called a section.



Questions (I.)—1. Name the three chief elevations of the land.—2. What is a mountain?—3. A range or chain?—4. A volcano? A crater?—5. A table-land or plateau?—6. A lowland plain?—7. What are the natural divisions of the land? What projections have their shores? What elevations have their surfaces?

(II.)—1. What are mountains and plateaus sometimes called? From what are their heights reckoned?—2. What is a hill? What is the summit of a mountain? The base? The slopes?—5. Which is broader, a mountain or a plateau? By what are table-lands sometimes crossed or bordered?—6. What is a valley? A desert? An oasis?—7. What is a section?

VIII.

DIVISIONS OF THE WATER.

- 1. The waters on the surface of the earth are divided into ocean waters and drainage waters.
- 2. **The ocean** is the great body of salt water that surrounds all of the continents. Its five principal divisions are also called oceans: namely, the Atlantic, the Pacific, the Indian, the Arctic, and the Antarctic Oceans.
- 3. A sea is a large division of the ocean nearly enclosed by land. The ocean itself is sometimes called the sea.
- 4. A gulf or bay is a body of water in a bend of the coast.
 - As there is but little difference between seas, gulfs, and bays, these names are sometimes given to similar bodies of water. A haven or harbor is a small bay in which ships are safe from storms.
- 5. A strait or channel is a narrow passage connecting two larger bodies of water.

A sound is a shallow channel or bay.

- 6. An ocean current is a great stream of water flowing through the ocean.
- 7. **The drainage waters**, or waters on the surface of the land, are rivers and lakes.
 - 8. A river is a large stream of fresh water.
 - A river flowing into another is called a branch or tributary. The place where a river begins or rises is its source; the place where it flows into a sea, lake, or another river is its mouth.
- 9. A lake is a body of water wholly or nearly surrounded by land.
- 10. **The natural divisions** of the water are oceans, rivers, and lakes. The subdivisions or arms of the ocean are called seas, gulfs, bays, sounds, straits, and channels.

Questions (I.)—1. Into what two great divisions may the waters be divided?—2. What is the ocean? To what else is the name given? Name them.—3. What is a sea? What is the ocean sometimes called?—4. What is a gulf or bay?—5. A strait or channel?—6. An ocean current?—7. Which are the drainage waters?—8. What is a river?—9. What is a lake?—10. Name the natural divisions of the water. What are the subdivisions or arms of the ocean called?

(II.)—I. What three names are sometimes given to similar bodies of water? Why? What is a haven or harbor?—5. What is a sound?—8. What name is given to a river flowing into another? What is the source of a river? The mouth?

IX.

DIVISIONS OF GEOGRAPHY.

- 1. Geography may be divided into Mathematical Geography, Physical Geography, and Political Geography.
- 2. **Mathematical Geography** is a description of the form, size, position, motions, circles, and zones of the earth, and of the relative positions of places on its surface.
- 3. **Physical Geography** is a description of the natural divisions of the surface of the earth.
 - It treats, first, of its simplest divisions into land, water, and atmosphere; second, of the position, distribution, and extent of the land and water, and of the great currents in the water and in the atmosphere; third, of the character of the climates in different parts of the earth, and the distribution of minerals, plants, and animals; and, fourth, of the laws, causes, mutual relations, and consequences of these facts, and of many of those of Mathematical Geography.
- 4. **Political Geography** is a description of the nations and peoples of the earth, their social condition, and the countries they inhabit.
 - It includes an account of towns, cities, states, industrial productions, and commerce. The Political Geography of a country is so closely dependent upon its Physical Geography that the two should be studied together.

Questions (I.)—1. How may Geography be divided?—2. What is Mathematical Geography?—3. What is Physical Geography?—4. What is Political Geography?

(II.)—3. Of what does the first part of Physical Geography treat? The second? The third? The fourth?—4. What does Political Geography include? Upon what is it dependent?

MAP-DRAWING.

TO THE TEACHER.

Map-drawing, as a branch of the study of Geography, presents itself under two aspects and as two distinct exercises.

First and most important, Sketching. This is an exercise by means of which the leading facts of local geography are rapidly and efficiently reviewed in the construction of quickly drawn outline maps, approximately correct, and showing the actual condition of the pupil's knowledge of the location of mountains, rivers, railways, towns, etc. The exercise is best prepared for in the class-room; it can then be gone over at home by the pupil, if thought desirable; and should finally be re-

viewed and repeated in the classroom as the equivalent of a recitation. An illustration of the method is given below. It should be remembered that the chief object of this exercise is not to test the pupil's skill in map-drawing, but his knowledge of location.

The second kind of exercise in map-drawing is that known as Cartography. This is much more elaborate, exact, and deliberate than sketching, and aims to present an accurate copy of some particular map. It is a valuable exercise, training the pupil to close and minute observation both of the principal and of the less important contents of the map, and to careful and artistic manipulation. The simplest and most efficient method of pursuing this exercise is illustrated in the concluding portion of this book.

Where circumstances will permit, it is advisable that the exercises in sketching should precede those in cartography. Those, however, who choose to begin with cartography, and omit sketching until a later stage, may readily do so.

SKETCHING FOR REVIEW.

Preparatory. - After the map questions relating to any state, let it be Maine, for instance, have been carefully studied, all the pupils of the class should take their slates and pencils and sketch the simple outlines of the state with the map open before them; the sketch should

be drawn upon as large a scale as the size of the slate will conveniently allow.

In the first lessons it will be well to let each pupil be furnished with a slip of stiff paper or card-board, divided into equal parts, to be used in measuring. A model is furnished at the foot of this page. In the second and more important review, in which the map is to be drawn from memory, the measure should not be used. The exercise will then be a sort of free-hand drawing. The work will be quite crude in the first

attempts, but with repetition, practice, and reasonable patience, very neat work can be produced. One or more of the class should draw the map on a large scale upon the blackboard.

First Step.—Teach the pupils to estimate, approximately, of course, the proportion or relation between the length of the state and its breadth, measuring in the direction of the meridians and parallels whenever possible. Let the estimate first be made by the eye only, then stated, and lastly tested by the measuring-slip.

Questions.—Is Maine longer from east to west or from north to south? (North to south.) How much longer? (One fourth.)

Second Step.—Lead the pupils to observe the number (usually four), direction, and length of the lines bounding the state, and whether they

are straight or curved or otherwise. This step will usually require more time and care than any other.

Questions.—How many lines form the boundary of Maine? (Five.) How many of them are partly or entirely straight? In what general direction does each lie? Which is the shortest line? (The northern.) Which is the longer boundary, the northwestern or the western? The eastern boundary or the coast line?

Third Step .- Draw the outline boundary.

First draw lightly the line of greatest length, A A, and that of greatest breadth, B B; many states are so simple as not to require these lines. Draw the northern boundary; the northwestern; the western; the eastern; the coast. As soon as the third step is complete, it will be well to inspect the work. Do the same at the close of each succeeding step, or even after each separate item.

Fourth Step .- Sketch the mountains, if there are any.

> Questions. - What mountains in Maine, and where are they? Draw

Fifth Step.—Draw the rivers, first noticing the direction of each.

Questions.-What boundary river on the north? Draw or go over it. On the east? Name the three chief rivers in the state. Draw the Penobscot. The Kennebec. The Androscoggin. Two or three chief lakes.

Sixth Step.—Locate the principal cities and towns, beginning with the capital. Use a star (*) for the capital, and a small circle or dot (0 •) for the other cities and towns.

Questions.—What city is the capital? On what river? Locate it. Name and locate the largest city. What city on the Penobscot? On which side of the river? Locate it. Where is Lewiston? Biddeford? (Other cities and towns may be drawn if required.)

Seventh Step. Draw the chief railroads.

Question.—Between or through what towns and cities is each?

A further step, involving another form of review, is to require the pupils to add initial letters to the several points drawn: Rivers-A. R., K. R., P. R., St. J. R., St. C. R. Cities-A., P., L., B.



OUTLINE MAP OF THE STATE OF MAINE.

In rapid work, the writing or printing of the full name will take too much time.

PHYSICAL WESTERN HEMISPHERE.

\mathbf{X} .

QUESTIONS ON THE MAP.

Continents.—What two continents are in the Western Hemisphere? By what isthmus are they connected? What three oceans wash the shores of North America? Which one is on the north? On the east? On the west? What ocean bounds South America on the north and east? On the west? What ocean south?

Islands.—What large island northeast of North America? What island is east of it? What archipelago between Greenland and the continent? What island near the eastern point of North America? What group southeast? What archipelago between North and South America? Which are its two largest islands? What group north of Cuba? What group northeast? What group at the southern end of South America? What group east? What group in the Pacific Ocean near the parallel of twenty north? Of fifty north? Of forty south? What general name is given to the islands of the Pacific?

Peninsulas.—What peninsula in the northwestern part of North America? In the eastern part? In the western part? What two near the island of Cuba?

Capes.—What cape at the southern point of Greenland? At the eastern point of Newfoundland? At the southern point of California? What cape of North America is near Asia? What cape opposite? What cape is the northern point of South America? The eastern point? The southern point? The western point?

Mountains.—What chain of mountains in the western part of North America? In the eastern part? In the western part of South America? In the eastern part? On which side of South America are there many volcanoes? (See red dots on the map.) On which side of North America?

Plains and Plateaus.—What plateau in the northern part of North America? What low plain? In the central part? What high plains west of the central plain? What plateau west of the Rocky Mountains? What is the name of its southern part? What plateau in the eastern part of South America? In the northern? In the western? What plains in the southern part? North of the plateau of Guiana? South?

Seas, Gulfs, and Bays.—What bay west of Greenland? In the Arctic Plain? What gulf west of Newfoundland? South of North America? What island and two peninsulas nearly close that gulf? What sea south of the West Indian Archipelago? Between Alaska and Asia?

Straits.—What strait connects Behring Sea with the Arctic Ocean? At the entrance of Baffin Bay? Of Hudson Bay? Between Cuba and Florida? Between Tierra del Fuego and the continent?

Rivers.—What river flows through the northwestern part of the Arctic Plain? Into what ocean? What river flows into the Gulf of St. Lawrence? From what lakes? From what plain? What other river flows through that plain? Into what gulf? What branch has it? What river of North America flows into the Pacific Ocean? From what plateau? Into what ocean do the rivers of South America flow? Which is the greatest river of South America? Through what plains does it flow? What river north of the Amazon? What river in the southern part of South America?

Ocean Currents.—What current flows from the Strait of Florida? Across what ocean? In what direction? What current flows from Baffin Bay? What current northeast of South America? Southeast? West? What current crosses the Pacific near the Equator? Near the parallel of fifty north?

Zones.—What circle crosses the northern part of North America? In what zone is Cuba? The Sandwich Islands? The Mississippi River? In what zones is North America? South America?

XI.

REVIEW EXERCISES.

Continents.—How bounded?

MODEL FOR STATING BOUNDARIES.—South America is bounded on the north by the Caribbean Sea, on the east by the Atlantic Ocean, on the south by the Antarctic Ocean, and on the west by the Pacific Ocean.

North America? South America?

Islands.—In what direction from the nearest land? By what waters surrounded?

Model.—Newfoundland is east of North America, and is surrounded by the Gulf of St. Lawrence and the Atlantic Ocean.

Arctic Archipelago? Greenland? Iceland? Newfoundland? Azores? Bermuda Islands? Bahama Islands? West Indian Archipelago? Cuba? Hayti? Falkland Islands? Tierra del Fuego? New Zealand Islands? Sandwich Islands? Aleutian Islands? Oceanica?

Peninsulas.—From what part of the continent does it project? Into what water, or between what waters?

MODEL.—California projects from the western part of North America, between the Gulf of California on the east and the Pacific Ocean on the west.

Labrador? Florida? Yucatan? California? Alaska?

Capes.—From what land does it project? From what part of it? Into what body of water?

Model.—Cape Race projects from the eastern part of Newfoundland into the Atlantic Ocean.

Farewell? Race? St. Lucas? Prince of Wales? Gallinas? Horn? St. Roque? Blanco? East Cape?

Mountains.—In what part of the continent are they? In what directions do they extend?

Model.—Appalachian, in the eastern part of North America, extend northeast and southwest.

Appalachian? Rocky? Brazilian? Andes?

Plains and Plateaus. - Where situated?

MODEL.—Arctic Plain is in the northern part of North America?

Arctic Plain? The Great Plains? Central Plain? Plains of the Orinoco? Plains of the Amazon? Plains of La Plata? Arctic Plateau? Western Plateau? Mexican Plateau? Plateau of Guiana? Plateau of Brazil? Plateau of Bolivia?

Oceans.—Of what continents does it wash the shores? or, around what pole is it?

Model.—Pacific Ocean washes the western shores of North and South America; Antarctic or Southern Ocean, around the South Pole.

Arctic or Northern? Antarctic or Southern? Atlantic? Pacific?

Seas, Gulfs, and Bays. — What coast does it indent or wash? Of what ocean or other body of water is it an arm?

MODEL.—Hudson Bay indents the northeastern coast of North America, and is an arm of the Atlantic Ocean.

Baffin Bay? Hudson Bay? Gulf of St. Lawrence? Gulf of Mexico? Caribbean Sea? Behring Sea?

Straits.—Between what lands? What waters does it connect?

Model.—Behring Strait, between Asia and North America, connects the Arctic Ocean with Behring Sea.

Behring? Davis? Hudson? Florida? Yucatan Channel? Magellan?

Rivers.—In what continent does it rise? In what part of it? In what mountains? In what direction does it flow? Into what water?

Model.—Missouri River rises in the Rocky Mountains in the western part of North America, and flows southeast into the Mississippi River.

Mackenzie? St. Lawrence? Mississippi? Missouri? Columbia? Orinoco? Amazon? La Plata?

Ocean Currents.—In what ocean? In what part of it? In what direction does it flow?

Model.—Brazilian Current, in the southwestern part of the Atlantic Ocean, flows towards the southwest.

Polar? Gulf Stream? Equatorial? Brazilian? Peruvian? Japan Stream?





EXPLANATION.

Low Plains	
Plateaus	
Volcanoes Direction of Currents	
[Copyright, 1875, by Harper & Brothers.]	

PHYSICAL EASTERN HEMISPHERE.

XII.

QUESTIONS ON THE MAP.

Continents.—What four continents are in the Eastern Hemisphere? Which three are united into one great land-mass? What isthmus between Asia and Africa? Which is the largest of these four continents? The next in size? The smallest? What ocean bounds Europe and Asia on the north? What ocean east of Asia? What three oceans border on Australia? What three continents border on the Indian Ocean? What ocean west of Europe and Africa?

Islands.—What two groups of islands are east of Asia? What archipelago southeast? What four great islands in the Malaysian Archipelago? What island north of Australia? South? Southeast of Africa? What group west of Europe? What island northwest? What islands in the Arctic Ocean? What islands west of Africa? Northwest? What lands in the Antarctic Ocean?

Peninsulas.—What peninsula in the northeastern part of Asia? In the eastern part? Southeastern? Southern? In the southern part of Indo-China? What island south of Hindostan? What peninsula in the southwestern part of Europe? In the northwestern part?

Capes.—What cape at the northern point of Europe? At the northern point of Asia? At the southern point of Malay Peninsula? Of Hindostan? At the eastern point of Africa? At the northern point? The western point? The southern point? Near Cape Agulhas?

Mountains.—What mountains in the southern part of Europe? Between Europe and Asia? In the southern part of Asia? For what are the Himalaya Mountains remarkable? (They are the highest in the world.) How high is the highest peak? (About $5\frac{1}{2}$ miles.) What mountains near the centre of Asia? In the northern part of Africa? In the southern part? In the southeastern part of Australia? What archipelago contains many volcanoes?

Plains, Plateaus, and Deserts.—What is the chief plain in Europe? What plain in the north of Asia? What plain south of the Arctic Plain? What plain in Eastern Asia? In Southern Asia? What plateau north of the Himalaya Mountains? South of the Altai? What plateau in the western part of Asia? What one southwest of the plateau of Iran? What other peninsula of Asia contains a plateau? Which continent is nearly covered by plateaus? What desert in the plateau of Mongolia? In what part of Africa is the great desert of Sahara? For what is it remarkable? (It is the largest desert in the world.) In what other part of Africa is there a desert?

Seas, Gulfs, and Bays.—What sea west of Kamtchatka? Of the Japan Islands? Of Corea? Of the Philippine Islands? In the Malaysian Archipelago? West of Hindostan? Of Arabia? Between Africa and Europe? East of the British Islands? Northeast of the Mediterranean? East of the North Sea? What gulf west of Africa? East of Arabia? What bay east of Hindostan? West of Europe?

Straits.—What strait between Java and Sumatra? Between Tasmania and Australia? Between Australia and New Guinea? At the entrance of the Mediterranean Sea? At the entrance of the Red Sea? What channel between Madagascar and Africa?

Rivers.—What three rivers of Asia flow into the Arctic Ocean? What four rivers in Eastern Asia? What river flows into the Bay of Bengal? The Arabian Sea? What river of Africa flows into the Gulf of Guinea? The Atlantic Ocean? The Mediterranean Sea? What river of Europe flows into the Caspian Sea? What rivers flow into the Black Sea?

Lakes.—What lakes in South Central Africa? What two lakes in Western Asia are called seas? What lake in Australia?

Ocean Currents.—What current flows westward through the Indian Ocean? What current southwest of Africa? Northwest of Europe?

Zones.—What circle crosses the northern part of Asia? What circle crosses the desert of Sahara? What continents does it cross? What great circle crosses Lerneo? What continent does it cross? What circle crosses Australia? What other continent does it cross? What circle bounds the South Frigid Zone? What lands does it cross? In what zone is Sumatra? Nova Zembla? Cape of Good Hope? The Mediterranean Sea? In what zones is Africa? Asia? Europe? Australia?

XIII.

REVIEW EXERCISES.

[For method of recitation, see XI.]

Continents.—How bounded?

Europe? Asia? Africa? Australia?

Islands.—In what direction from the nearest land? By what waters surrounded?

Japan Islands? Malaysian Archipelago? Philippine Islands? Java? Celebes? Sumatra? Borneo? New Guinea? Tasmania? Madagascar? Ceylon? British Islands? Iceland? Spitzbergen? Nova Zembla? Madeira Islands? Canary Islands? St. Helena?

Peninsulas.—From what part of the continent does it project? Into what water, or between what waters?

Kamtchatka? Corea? Indo-China? Malay? Scandinavian? Hindostan? Spanish?

Capes.—From what land does it project? From what part of it? Into what body of water?

North? Northeast? Romania? Comorin? Bon? Good Hope? Guardafui? Verde? Agulhas?

Mountains.—In what part of the continent are they? In what direction do they extend?

Alps? Ural? Altai? Himalaya? Atlas? Snowy? Blue?

Plains, Plateaus, and Deserts .- Where situated .

Great Plain of Europe? Arctic Plain? Siberian Plain? Plain of China? Plain of the Ganges? Plateau of Mongolia? Plateau of Thibet? Plateau of Iran? Plateau of Arabia? Desert of Gobi? Arabian Desert? Sahara Desert?

Oceans.—Of what continents does it wash the shores \(\) or, around what pole is it?

Arctic? Pacific? Antarctic? Atlantic? Indian?

Seas, Gulfs, and Bays. — What coasts does it indent or wash? Of what occan or other body of water is it an arm?

Okhotsk? Japan? Yellow? China? Java? Bengal? Arabian? Red? Persian? Guinea? Mediterranean? Black? Biscay? North? Baltic?

Straits.—Between what lands? II hat waters does it connect?
Sunda? Bass? Torres? Gibraltar? Bab el Mandeb? Mozamique?

Rivers.—In what continent does it rise? In what part of it? In what mountains? In what direction does it flow? Into what water?

Obi? Yenisei? Lena? Amoor? Hoang Ho? Yang tse Kiang? Ganges? Cambodia? Indus? Niger? Nile? Congo? Volga? Danube? Dnieper?

Lakes.— Where situated? What outlet has it?

Albert Nyanza? Victoria Nyanza? Caspian Sea? Aral Sea? Eyre?

Ocean Currents.—In what ocean? In what part of it? In what direction does it flow?

Equatorial Current? South Atlantic Current? Gulf Stream?





EXPLANATION.

Low Plains	كشنار
Plateaus	
Very High Land	
Volcanocs	
Direction of Currents	

COMPARATIVE PHYSICAL GEOGRAPHY.

XIV. THE CONTINENTS.

MAP OF THE WORLD



- 1. The Old World has more than twice as much surface as the New World. Its line of direction, or line of greatest length, is from northeast to southwest. The New World extends from northwest to southeast.
- 2. Each of these great land-masses consists of two parts, the larger being to the north. Africa is joined to Asia by the narrow Isthmus of Suez, and South America to North America by the Isthmus of Panama.

These two isthmuses are of great commercial importance, because the principal routes connecting the commerce of the great oceans pass across them.

3. The southern continents, South America and Africa, are much alike in shape and direction.

Their similarity is somewhat like that of the two hands.

- 4. Each continent widens toward the north and narrows to a point at the south.
- 5. Nearly all the great peninsulas point in a southerly direction.

They project from the three northern continents. The principal shore-lines of the continents, nearly all of the great mountain ranges, and most of the great chains of islands lie in a southeasterly or southwesterly direction.

- 6. The three northern continents, North America, Europe, and Asia, are irregular in form. The three southern continents are South America, Africa, and Australia; the first two are peninsular in form.
- 7. The coasts of the northern continents, and particularly those of Europe, are much broken by inland seas. Those of the southern continents are nearly unbroken by peninsulas or by arms of the ocean.

Each northern continent has three great peninsulas projecting from its southern border. These peninsulas are curiously alike in some particulars: Indo-China, Greece, and Florida, at the southeast, have each a large archipelago southeast of them;

Arabia, Spain, and California, at the southwest, are very simple in form, and have no such islands; Hindostan, Italy, and the long isthmus of Central America correspond in position.

Questions (I.)—1. Which has the greater surface, the Old World or the New World? How many times as much? What is the line of direction of the Old World! Of the New World?—2. Of what does each of these land-masses consist? Which part is the larger? How is Africa joined to Asia? North America to South America?—3. In what are South America and Africa alike?—4. In what direction does each continent widen? In what direction does it narrow?—5. In what direction do nearly all the great peninsulas point?—6. Name the three northern continents. What is their form? Name the three southern continents. What is their form?—7. How do the coasts of the northern continents differ from those of the southern continents?

(II.)—2. Why are the two isthmses of great commercial importance?—3. To what may the similarity of South America and Africa be compared?—5. Which continents have nearly all the great peninsulas? In what two directions do the principal shorelines, mountain ranges, and island chains lie?—7. What points of resemblance have the three northern continents?

XV.

ISLANDS.

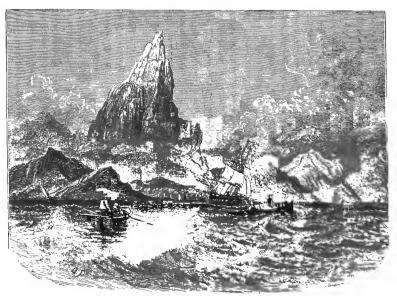
- 1. Nearly all the islands lie in curved chains or in groups. Some are the tops of hills or mountain ranges whose lower parts are under the sea.
 - 2. Islands are of two kinds—continental and oceanic.
- 3. Continental islands are those lying near the continents of which they appear to have been once a part.

The principal chains of continental islands lie east and southeast of Asia and North America.

4. Oceanic islands are those lying far out in the ocean.

The principal chains of oceanic islands are in the Pacific Ocean.

The Azores and Bermudas are oceanic groups. St. Helena and Ascension are solitary oceanic islands.



VOLCANIC ISLAND

Volcanic islands are those which have been raised by volcanic forces from the depths of the ocean. They have bold shores and lofty peaks, and may be either continental or oceanic. Most

of the coast islands of Asia, the Galapagos and Sandwich groups of the Pacific, and Iceland, the Azores, Cape Verde, St. Helena, and Ascension of the Atlantic, are volcanic islands.

Coral islands are those composed of coral, a limy substance formed from sea-water by certain small animals, and are found only in the warmer parts of the ocean. They are usually small and low. The Bahamas and Bermudas in the Atlantic and many oceanic chains in the Pacific are coral islands.

Questions (1.)—1. How are most islands arranged? What are some of them?—2. How many kinds of islands? What are they?—3. What are continental islands? Where are the principal chains of continental islands?—4. What are oceanic islands? Where are the principal chains?

(II.)—4. Name some oceanic islands. What are volcanic islands? What kind of shores and surfaces have they? To which class do they belong? Name some volcanic islands of the Pacific. Of the Atlantic. What are coral islands? Where found? Of what size? Name some coral islands.

XVI.

MOUNTAINS.

- 1. A mountain system is a number of nearly parallel ranges covering a wide belt of country.
- 2. The New World has the longest mountain system; its length is about ten thousand miles.
 - It has two principal divisions—the Andes chains in South America, and the Rocky Mountains and parallel chains in North America. Its highest point is in South America, and is about 25,000 feet, or $4\frac{3}{4}$ miles, above the sea.
- 3. **The chief system** of the Old World begins on the Atlantic shores, and extends in an irregular line to the Pacific. It is about eight thousand miles long, and is composed of many smaller systems.

Among them are the Himalaya Mountains, which are the highest in the world, the Caucasus, and the Alps. The highest point of the Himalaya Mountains is about 29,000 feet, or $5\frac{1}{2}$ miles, above the sea-level.

These two great systems are not far from the shores of the continents in which they lie. The principal systems of Africa and Australia lie near their eastern coasts.

The tops of many of the great mountain chains are always covered with snow, even in the Torrid Zone.

4. **Volcances** are found chiefly in mountainous islands, or in mountain ranges which are near the sea. The great lowland plains have no volcanoes.

The volcanoes of the Western Hemisphere are mostly found in its great mountain systems; those of the Eastern, in the island chains bordering the coasts of Asia. Many of the oceanic islands in the Pacific contain volcanoes. Most of the volcanoes of the world are in the Pacific Ocean or near its borders.

5. **Mountains** are of great importance: they condense a large part of the moisture that falls from the atmosphere as rain or snow; they contain the sources of nearly all

the great rivers of the globe; their cold summits temper the fierce heat of the Torrid Zone; in them are found most of the metals and other minerals so important to the well-being of man.

Questions (I.)—1. What is a mountain system?—2. Where is the longest system? How long is it?—3. Describe the chief system of the Old World. How long is it? Of what is it composed?—4. Where are volcanoes chiefly found? Where are none found?—5. State some of the uses of mountains.

(II.)—2. How many divisions has the great mountain system of America? What chains in each? Where is its highest point? How high is it?—3. Which are the highest mountains in the Old World? How high is their highest peak? What other mountains in the same system? Where are the two great systems? Where is the principal system of Africa? Of Australia? With what are the tops of many of the great mountain chains covered?—4. Where are most of the volcanoes of the Western Hemisphere found? Of the Eastern? What oceanic islands contain volcanoes? Where are most of the volcanoes of the world found?

XVII.

PLATEAUS OR TABLE-LANDS.

1. The great plateaus of each continent are in the same regions and lie in the same direction as the chief mountain systems.

These mountains either stand upon the plateaus or form their border walls.

2. The chief plateau belt of North America extends from the isthmus of Tehuantepec to the Arctic Ocean.

Its highest part, the plateau of Mexico, is from 4000 to 8000 feet above the level of the sea. The Rocky Mountains divide these plateaus into two sections: the eastern section is known as the Great Plains; the western section is covered with numerous parallel chains of mountains.

3. The chief plateau belt of South America extends in a band parallel with the western coast.

Its highest and widest part, the plateau of Bolivia, is more than 12,000 feet above the sea. Its edges are formed by two great chains of the Andes. In the eastern part of South America there are low and broad plateaus.

4. The plateaus of Asia are the highest and most extensive in the world.

The plateau of Thibet is the highest; it reaches an elevation of 16,000 feet. It is bordered on the south by the Himalayas.

5. The plateaus of Africa cover nearly the whole of that continent.

The highest is east of the Nile River, and is from 6000 to 7000 feet in elevation. Africa is bordered on nearly every side by mountains. The Atlas, Snowy, and the ranges near the eastern coast are the principal chains.

6. The plateaus of Australia are comparatively low.

This continent resembles Africa in its almost unbroken coasts and mountain borders.

- 7. Europe has no large plateaus.
- 8. Nearly all deserts are plateaus.

Questions (I.)—1. Where are the great plateaus of each continent found? In what direction do they lie?—2. Where is the chief plateau belt of North America?—3. Of South America?—4. What is said of the plateaus of Asia?—5. What is said of the plateaus of Africa?—6. Of the plateaus of Australia?—7. Of Europe?—8. What is said of deserts?

(II.)—1. What relation have the mountains to the plateaus with which they are connected?—2. What name is given to the highest plateau of North America? How high is it? How do the Rocky Mountains divide these plateaus? What name is given to the eastern section? What is the character of the western section?—3. What name is given to the highest plateau of South America? How high is it? What mountains border the high plateaus of that continent? Where are its low plateaus?—4. What name is given to the highest plateau of Asia? Flow high is it? What mountains border it?—5. Where is the highest plateau of Africa? How high is it? How is that continent bordered? Name the principal chains.—6. In what respects does Australia resemble Africa?

XVIII.

LOWLAND PLAINS.

1. The great lowland plains of the American continents lie between the high plateaus and the coasts of the Atlantic Ocean, from which they are partly separated by low plateaus and mountains.

The great lowland plains of Europe and Asia lie between the high plateaus and the shores of the Arctic Ocean.

These plains are the most extensive in the world. Their greatest length is in the same direction as the principal mountain systems and the belts of plateaus. Smaller but important plains are found in other parts of these four continents.

2. The lowland plains of Australia lie in the central and southern portions of that continent.

The greater part of these plains is yet unexplored.

Africa has no large and important lowland plain.

3. The most fertile soil and the largest navigable rivers are found in the low plains of the Torrid and Temperate Zones.

The greater part of the population of the world, and the chief seats of civilization, are found in these plains. The most densely populated are the plains of China, of the Ganges, and the western part of the great plain of Europe.

More than one third of the population of North America inhabit its central plain.

4. The plains which border the Arctic Ocean are among the coldest regions of the globe.

Questions (I.)—I. Where are the great lowland plains of the American continents? By what are they partly separated from the Atlantic? Where are the great low plains of Europe and Asia?—2. Of Australia? Of Africa?—3. What is said of the plains of the Torrid and Temperate Zones?—4. Of those bordering the Arctic Ocean?

(II.)—1. Which are the most extensive plains in the world? In what direction is their greatest length? Are there any other important plains in these four continents?—2. What can you say of the lowland plains of Australia?—3. What are found in the plains of the Torrid and Temperate Zones? Name the most densely populated. How much of the population of North America inhabits its central plain?

XIX.

THE OCEANS.

- 1. The Pacific Ocean is about as large as all the other oceans taken together.
 - It is remarkable for the number of its islands and border seas; these seas are enclosed or partly enclosed by curved lines of islands
- 2. The Atlantic Ocean is about half as large as the
 - It is remarkable for the many inland seas that branch from it, and for the number of great rivers that flow into it. Its northern half is the chief theatre of the ocean commerce of the world.
- 3. **The Indian Ocean** is much smaller than the Atlantic.

It is remarkable for the fewness of its seas and islands, and for the violence and frequency of its hurricanes.

4. The Arctic Ocean is much the smallest of the oceans.

It is a part of the Atlantic rather than a separate ocean. All the great plains border on the Atlantic and Arctic Oceans.

- 5. The Antarctic or Southern Ocean is not properly a separate ocean, but a combination of the southern parts of the three great oceans.
 - It is remarkable for the intensity of its cold, and for the number and size of its icebergs.

The greater part of the polar oceans, and especially the Antarctic, has never been explored.

Questions (I.)—1. What is said of the size of the Pacific Ocean?—2. Of the Atlantic?—3. Of the Indian?—4. Which is the smallest ocean?—5. Is the Antarctic Ocean a separate ocean? What is it?

(II.)—1. For what is the Pacific Ocean remarkable? By what are the border seas enclosed? Name four of the border seas of the Pacific Ocean. (See maps of hemispheres.)—2. For what is the Atlantic Ocean remarkable? What is said of its commercial importance? Name four inland seas of this ocean. Name two great rivers flowing into it from North America. Three from South America. One from Africa.—3. For what is the Indian Ocean remarkable? Name the two great bays of that ocean.—4. Of what ocean is the Arctic a part? Name the three continents surrounding it. What lands border on these two oceans?—5. For what is the Antarctic Ocean remarkable? Have the polar oceans been explored? Why?

XX.

DRAINAGE WATERS,-RIVERS.

1. The ocean is the source of all the waters upon the surface of the land.

The winds and the heat of the sun are constantly carrying away invisible vapor from the surface of the ocean; this forms clouds, and falls upon the land as rain or snow. This water leaves the iand surface in three ways: first, the greater part is evaporated; second, a part flows directly away, forming lakes, rivers, and smaller streams; third, a part sinks into the soil, and issues again at a lower level as springs.

2. Many large rivers have their sources in the snow-covered mountains of the table-lands.

Most rivers begin at springs, and are enlarged by rains and melted snows, and by other rivers.

3. A river system is a river with its branches.

A basin or **valley** is the whole country drained by a river system.

A water-shed is the line of highest land that divides two basins.

In the United States it is sometimes called a divide.

An estuary is a broad mouth of a river. When a river enters the sea by two or more mouths, the land between the mouths is called a delta.

A cañon is a deep and narrow gorge through which a river runs. Rapids are those parts of a river in which the current is very swift. Falls are those parts of a river in which the water flows over a precipice. Falls of small streams are called cascades; of large rivers, cataracts.

4. The rivers in the low plains are the chief natural channels of commerce, especially since the invention of the steamboat, by means of which their swift currents may be ascended. Commerce is less expensive by water than by land.

In the hill countries, rivers whose falls or rapids interrupt navigation furnish valuable water-power for manufacturing purposes.

Some rivers overflow their banks at certain seasons, and by a rich deposit of mud fertilize the low lands through which they run.

Where rivers run through lands which are very dry during the summer, their water is sometimes used to irrigate the soil.

Questions (I.)—1. What is the source of all the waters which are on the surface of the land?—2. Where do many large rivers have their sources?—3. What is a river system? What is a basin or valley? What is a water-shed?—4. State some of the uses of rivers.

(II.)—1. How is water constantly taken from the surface of the ocean? In what form does it fall again? In how many and what ways does it leave the land surface again?—2. At what do most rivers begin? How are they enlarged?—3. What is a divide? An estuary? A delta? A cañon? What are rapids? Falls? Cascades? Cataracts?

XXI.

LAKES.—GLACIERS AND ICEBERGS.

- 1. Lakes are of two kinds—salt and fresh.
- 2. A salt lake is one that has no outlet.

Small quantities of salt are washed out of the soil by the rains; if carried to a lake having no outlet, the salt is left in the lake by the evaporation of the water.

3. The plains and plateaus of Asia have the largest salt lakes in the world.

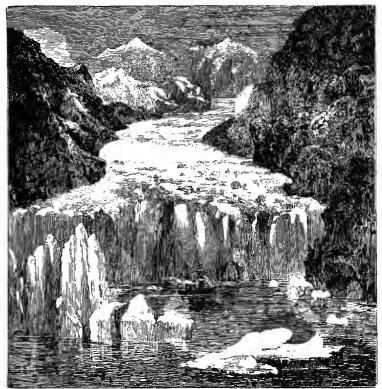
The largest of these are the Caspian and Aral seas.

4. The plains of North America and the plateaus of Southern Africa have the largest fresh-water lakes in the world.

Their principal outlets are the St. Lawrence and Nile Rivers. Titicaca, on the plateau of Bolivia in South America, is the most elevated of the large fresh-water lakes: it is 13,000 feet above the ocean-level.

5. **Glaciers** are vast river-like fields of ice. They are formed from snow, which is solidified by the pressure of its own weight, and by melting and freezing.

They are formed in the high mountain valleys in the regions of perpetual snow. They move very slowly down the valleys—only a few rods in a year. In the Temperate Zones they are found in the highest part of the highest mountains, as in the Alps and the Himalayas. In the Frigid Zones their lower edges project into the sea; the tides and waves here wash away their bases, and the overhanging portions at last break off by their own weight and fall into the sea: they are then called icebergs.



THE ORIGIN OF AN ICEBER

6. **An iceberg** is a large floating fragment of an arctic or antarctic glacier.

The great glaciers of Greenland are famous for the numerous icebergs which they send off; many have been seen projecting more than 300 feet above the sea, seven eighths of their mass being under water. Icebergs are largest and most numerous in the Antarctic Ocean; they are formed in the unknown lands around the South Pole.

Questions (I.)—1. How many kinds of lakes? What are they?—2. What is a salt lake?—3. Where are the largest salt lakes in the world?—4. Where are the largest fresh-water lakes in the world?—5. What are glaciers? How are they formed?—6. What is an iceberg?

(II.)—2. How is a salt lake formed?—3. Name the two largest salt lakes.—4. What are the outlets of the largest fresh-water lakes? Which is the most elevated of the large fresh-water lakes? Where is it? How high?—5. Where are glaciers formed? Describe the origin of an iceberg.—6. What can you say of the glaciers and icebergs of Greenland? Of the Antarctic Ocean? Where are they formed?

XXII.

OCEAN CURRENTS.

1. **An ocean current** is a broad stream of water flowing through the ocean.

The great ocean currents are so connected with each other as to form a circulatory system; some of them are of great depth.

2. **Constant currents** are those that always flow in the same direction.

Some of them have been traced many thousands of miles. All the rivers in the world are insignificant when compared with some of these currents. The chief cause of ocean currents is the difference of temperature of the ocean waters in the Torrid and Frigid Zones: the warmer and lighter water flows towards the poles, an equal quantity of the colder and heavier water flowing at the same time towards the Equator. The ocean currents thus assist to cool the tropical and to warm the polar regions.

The direction and velocity of currents are modified, first, by the earth's revolution on its axis; second, by the constant winds of the Torrid Zone; third, by being turned aside by the shores.

3. The Equatorial Currents are the widest and longest of the constant currents.

They are found in the Atlantic and Pacific oceans, and move from east to west.

- 4. The most important current is the Gulf Stream.
- A division of the Equatorial Current passes along the outer or ocean shores of the West Indies. A branch from this enters the Caribbean Sea and again subdivides. One part passes eastward along the shores of Hayti, and rejoins the outer current. The other part passes through Yucatan Channel, and issues from the Strait of Florida as a swift and deep current known as the Gulf Stream. It rejoins the outer current at the Bahamas, and gives its own name to the entire current, which then crosses the Atlantic in a northeasterly course, and, with the winds which sweep over its warm waters, gives a mild climate to Western Europe.
- 5. **The Japan Stream**, a current similar to the Gulf Stream, passes from Japan towards North America.
- 6. **The Polar Currents** are the cold currents passing from the polar regions towards the Equator.

They bring vast quantities of ice from the polar regions. But little is known of the cold currents which flow at the bottom of the ocean. The ocean water at great depths in the Torrid Zone is nearly as cold as that in the Arctic Ocean. The two broad oval spaces between the Equatorial Currents on the south and the Gulf Stream and the Japan Stream on the north are called Sargasso or Grassy seas, because covered with floating sea-weeds.

Questions (I.)—1. What is an ocean current?—2. What are constant currents?—3. Which are the greatest of the constant currents?—4. Which is the best known current?—5. Describe the Japan Stream.—6. Describe the Polar Currents.

(11.)—1. How are the ocean currents connected? What is said of their depth?—2. How far have some been traced? How do they compare with rivers? What is their chief cause? Of what use are they? How are their direction and velocity modified?—3. Where are the Equatorial Currents found? What is their general direction?—4. Describe the origin and course of the Gulf Stream. How does it affect the climate of Western Europe?—6. What do the Polar Currents bring from the polar regions? What is said of the deep cold currents? Of the deep water in the Torrid Zone? Where are the Sargasso or Grassy seas? Why so called?

XXIII.

WINDS.

1. **The atmosphere** covers the earth to a height of about fifty miles.

The upper portions of the atmosphere press upon the lower, and make them denser. Nearly all the moisture and all animal and vegetable life are found within three and a half miles of the level of the sea. Above this the thinness and dryness of the atmosphere, and the intense cold, render plant life, and consequently animal life, impossible.

The mountains of Thibet have been ascended above four miles.

A balloon has reached an elevation of five and three-quarter miles. These are the greatest heights ever reached by man. In both cases the suffering was very great.

- 2. **Heat** causes air, first, to expand and become lighter; and, second, to absorb and render invisible large quantities of water. **Cold** produces opposite effects.
- 3. **The heat of the sun** produces ascending currents of hot air, particularly in the Torrid Zone; other air flows in below to fill the space.
 - 4. Winds are currents of air.

The currents from the polar regions tend at first directly towards the Equator; as they pass towards and into the Torrid Zone, the revolution of the earth on its axis causes them to turn more and more towards the west: these currents are then called the Trade Winds.

5. **The Trade Winds** are constant winds between the parallels of 30° north and south latitude, and always blow from an easterly direction. They carry immense quantities of vapor from the Atlantic, Pacific, and Indian oceans.

The masses of heated air rise some miles from the surface of the earth, and flow over in two sets of currents, one towards each pole, to fill the places left vacant by the Polar Currents; they gradually cool and settle towards the surface, striking it beyond the parallels of 30°: they are then known as the Return Trade Winds, or Counter Trade Winds.

6. The Counter Trade Winds are the prevalent winds beyond the thirtieth parallels. In the Northern Hemisphere they blow from the southwest, and in the Southern from the northwest.

The Trade Winds and Counter Trade Winds are similar to the ocean currents both in cause and general direction.

Questions (I.)—1. To what height does the atmosphere extend?—2. What are the effects of heat upon air? Of cold?—3. What are the effects of the sun's heat? In what zone is this effect most marked? What other effect follows?—4. What are winds?—5. What and where are the Trade Winds? What is their direction? What do they carry?—6. What and where are the Counter Trade Winds? In what direction do they blow?

(II.)—1. How do the upper portions of the atmosphere affect the lower? What are found only within three and a half miles of the level of the sea? Why is there no life above this height? What are the greatest heights ever reached by man? What was the effect?—4. In what direction do the Polar Currents at first flow? In what direction afterwards? What causes this change? What are they then called?—5. Describe the course of the ascending currents of the Trade Winds. Where do they again strike the surface of the earth? What are they then called?—6. In what respects are the Trade Winds similar to the ocean currents?

XXIV.

CLIMATE.

- 1. **The climate** of a country is the general condition of its atmosphere in regard to heat and moisture.
- 2. Climate depends upon distance from the Equator, elevation above the sea level, the prevailing winds and ocean currents, and distance from the sea.
 - 3. The Frigid Zones have an intensely cold climate.
- 4. The low plains in and near the Torrid Zone are very hot. If they are open to the ocean winds, their climate is moist; if not, it is dry.
- 5. The high plateaus within and near the tropics have a mild, spring-like climate.
- 6. The high mountains in the same regions have their tops covered with perpetual snow.

The lower limit of perpetual snow is called the snow-line; it is of less and less elevation towards the poles.

7. Winds and ocean currents modify climate. The winds have by far the more marked effect.

When a warm ocean wind strikes the sides of a high mountain chain, it passes up the slope, growing colder and gradually losing its moisture in rain or snow as it ascends, and at last passes over the range and down the opposite slope as a cold and dry wind.

The warm and moist Return Trade
Winds of the Atlantic blow upon
Western Europe, and the warm waters
of the Gulf Stream reach its shores;
in the same latitude, the shores of
Greenland and Labrador are washed
by the icy waters of the arctic currents and swept by the polar winds.
The one region has a mild climate,
and is occupied by the most enlightened nations of the world; the others
are frozen wastes, sparsely inhabited
by degraded savages and a few European traders.

The sun is vertical to a place when it is directly over that place. This can happen only in the Torrid Zone.

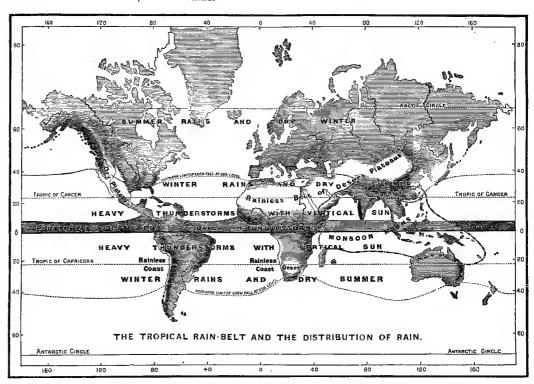
As the sun passes from one tropic to the other, the parts of the zone over which it is vertical have their greatest heat, and consequently their greatest evaporation. In those regions which are open to the Trade Winds, a heavy thunder-storm begins early in the afternoon, and continues until near sunset; the sky then becomes cloudless until the next day about the same hour. After some weeks, the sun being no longer vertical, the rains become less frequent, and at last cease for months, till the sun again returns.

The only seasons of the Torrid Zone are the wet season while under the rain-belt, and the dry season during its absence. Places near the Equator have therefore two rainy seasons and two dry seasons; other parts of the Torrid Zone have one rainy season and one much longer dry season.

The heat and moisture of the tropical rain-belt produce the most luxuriant vegetation in the world.

A great belt of deserts stretches across the Old World from the Atlantic nearly to the Pacific Ocean: it is caused by the absence of rain-bearing winds.

These rains of the Torrid Zone are called periodical rains; the more irregular ones of the Temperate Zones are called variable rains.



8. **The rain-fall** of a country is the quantity of water that falls upon it as rain or snow.

In the Torrid Zone the average annual fall is about 100 inches, but in some places in that zone it is four or five times as much. In the Temperate Zones it is from 35 to 40 inches, or little more than one third as much as in the Torrid Zone. In the Frigid Zones it is much less.

The rain-fall usually diminishes as the distance from the sea increases.

9. The tropical rain-belt is a broad movable belt of rain extending around the world. It is about 1000 miles wide from north to south.

Questions (I.)—1. What is climate?—2. Upon what does it depend?—3. What is the climate of the Frigid Zones?—4. Of the low plains in the Torrid Zone? When is it moist? When dry?—5. Of the high plateaus in that zone?—6. Of the high mountains?—7. What effect have winds and ocean currents? Which have the greater effect?—8. What is the rain-fall of a country?—9. The tropical rain-belt? How wide is it?

(II.)—6. What is the snow-line? How does its height vary?—7. Describe the effects of high mountains upon ocean winds. What two principal causes modify the climate of Western Europe? Of Greenland and Labrador? What are the effects?—8. What is the average annual rain-fall in the Torrid Zone? In the Temperate Zones? In the Frigid Zones? What effect has distance from the sea?—9. When is a place said to have a vertical sun? In what zone can this occur? How does it affect the heat? The evaporation? Describe the tropical rains. Which are the only seasons in the Torrid Zone? What seasons at the Equator? In other parts of that zone? What effects do the heat and moisture produce? Where is the great belt of deserts? By what is it caused? What are periodical rains? Variable rains? Where do they occur?

XXV.

RACES OF MEN.

- 1. The number of inhabitants upon the earth is estimated at about 1450 millions.
- 2. They are divided into five great **races**—the Caucasian, the Mongol, the Ethiopian, the Malay, and the American or Indian.
- 3. **The Caucasian** or white race is the most widely spread. It occupies Western Asia, Europe, Northern Africa, and large parts of North and South America and Australia.

It is the most restless, intelligent, and powerful of the races, and includes all the great historic nations.

- 4. The Mongol or yellow race is found chiefly in Eastern and Northern Asia.
- 5. The Ethiopian or black race is found chiefly in Central and Southern Africa.
- 6. The Malay or brown race inhabits Southeastern Asia and most of the islands of the Great Archipelago and the Pacific.
- 7. **The American** or red race inhabits portions of the American Continents from Cape Horn to the Arctic Ocean.

The Caucasian and Mongol races are about equal in numbers. Together they constitute more than four fifths of the whole human family. The Ethiopian race comprises about one seventh, the Malay about one twenty-fifth, and the American about one one-hundredth of mankind.

Questions (I.)—1. What is the number of inhabitants upon the earth?—2. Into how many races are they divided? What are they?—3. Which is most widely spread? What regions does it occupy?—4. Where is the Mongol or yellow race found?—5. The Ethiopian or black race?—6. The Malay or brown race?—7. The American or red race?

(II.)—3. For what is the Caucasian race distinguished?—7. What part of mankind is comprised in each race?

POLITICAL GEOGRAPHY.

XXVI.

CONDITIONS OF SOCIETY.

- 1. **Nations and tribes** may be divided, in respect to their social condition, into five classes: savage, barbarous, half civilized, civilized, and enlightened.
- 2. Savages are those who live in tribes, and obtain their food by hunting and fishing.
- 3. **Barbarians** are those who possess flocks and herds, and practice a rude agriculture.

Those who live in tents, like the Bedouin Arabs, are called nomads.

4. Half-civilized nations are those that depend

chiefly upon agriculture, have made considerable advance in the mechanic arts, and have towns and cities.

- 5. Civilized nations are those that engage in commerce, practice the art of writing, and have made considerable progress in knowledge and morality.
- 6. **Enlightened nations** are those civilized nations that possess a thorough division of labor, have established general systems of education, and have made the greatest progress in knowledge and morality.

Many nations are partly in two or more of these classes. The enlightened and civilized nations are nearly all Caucasian.

Questions (I.)—1. Into how many classes may nations be divided in respect to social condition? What are they?—2. What are savages?—3. What are barbarians?—4. What are half-civilized nations?—5. What are civilized nations?—6. What are enlightened nations?

(II.)—3. What are nomads? Name some nomads.—6. Does each nation belong exclusively to one of these classes? To which race do most of the civilized and enlightened nations belong?

XXVII.

GOVERNMENT,

- 1. The principal forms of government are the **republican** and the **monarchical**.
- 2. A republic is a country governed by men who are chosen by the people. The chief magistrate is usually called a president.

Nearly all the governments of the New World are republican.

3. A monarchy is a country in which one person succeeds to the chief power by inheritance, and holds it for life.

Nearly all the governments of the Old World are monarchical. An unlimited monarchy or despotism is one in which the will of the monarch is the supreme law.

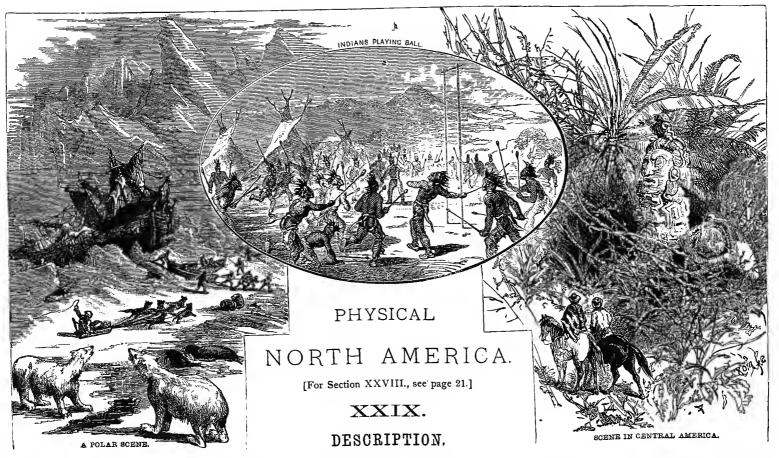
- A limited monarchy is one in which the power of the ruler is limited by a system of laws called a constitution.
- 4. A kingdom is a country governed by a king or queen.
- 5. An empire is a monarchy, usually of great extent. Most empires are unlimited monarchies.

The sovereign is called an emperor, sultan, shah, czar, or mikado.

- 6. **The capital** of a country is the seat of its government.
 - 7. The metropolis is the largest city.

Questions (I.)—1. What are the principal forms of government?—3. What is a republic? What is the title of its chief magistrate?—3. What is a monarchy?—4. What is a kingdom?—5. An empire?—Is it limited or unlimited?—6. What is the capital of a country?—7. The metropolis?

(II.)—2. What is the form of most of the governments of the New World?—3. Of the Old World? What is an unlimited monarchy? What is a limited monarchy?—5. What title has the sovereign of an empire?



- 1. The surface of North America is naturally divided into four parts: the Western Highland, the Eastern Highland, the Low Central Plain, and the Atlantic Plain.
- 2. The Western Highland, or Great Plateau Belt, extends from the Arctic Ocean to the Isthmus of Tehuantepec. The Sierra Nevada and Cascade ranges are on its western border, and the Rocky Mountains divide it into two nearly equal parts.

These ranges are the highest in North America, and reach their greatest elevation, about 14,000 to 15,000 feet, in the broad, middle region of the table-land; the table-land itself is quite low in the north, but rises gradually to nearly 8000 feet in the plateau of Mexico. At the ends of this highland are many volcanoes. Of these, St. Elias in the north and Popocatepetl in the south are the highest peaks on the continent.

The long and mountainous isthmus of Central America may be regarded as a continuation of this plateau belt.

3. The Eastern Highland extends from Labrador nearly to the Gulf of Mexico. Its mountains are the low ranges of the Appalachian system.

The highest peaks are from 6000 to 6700 feet in elevation. It has very little table-land.

- 4. The Atlantic Plain is the strip of low land between the Appalachian Mountains and the ocean.
- 5. The Low Central Plain lies between the two highlands, and extends from the Arctic Ocean to the Gulf of Mexico.

It is crossed nearly midway by a low swell called the Height of Land, which divides it into two gentle and opposite slopes: the northern slope is the Arctic Plain; nearly all of the other slope, or Southern Plain, lies in the basin or valley of the Mississippi.

Questions (I.)—1. How is the surface of North America naturally divided? Name them.—2. Where is the Western Highland? What and where are its principal mountains?—3. Where is the Eastern Highland? What mountains has it?—4. Where is the Atlantic Plain?—5. The Low Central Plain?

(II.)—2. Which are the highest ranges in North America? Where is their greatest elevation? How high are they? Describe the table-land. Where are volcanoes found? Name two. For what remarkable? What is said of Central America?—3. How high are the highest peaks of the Appalachian system? Has the Eastern Highland any table-land?—5. By what is the Low Central Plain divided? Into what? What name has each? In what basin is the southern slope?

XXX.

CLIMATE, VEGETATION, AND ANIMALS.

1. The West Indies, Central America, and a large part of Mexico have a tropical or constantly warm climate.

The season of tropical rains lasts many weeks, the rest of the year being dry.

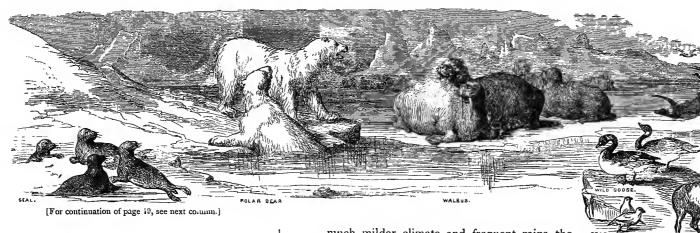
The vegetation is luxuriant—coffee, sugar, corn, cotton, and tobacco are extensively cultivated, and the banana, pine-apple, lemon, orange, and other tropical fruits are produced with little labor. European grains are grown on the plateaus. The forests abound in mahogany, rose-wood, and palm-trees.

2. The northern third of the continent has a very cold climate, excepting a strip along the western coast.

The Polar Current passes along the eastern coast to Newfoundland. Ice nearly closes the broad entrance to Baffin Bay, and Hudson Bay is open only about six weeks in the year.

The western coasts, from Alaska to the Columbia River, have a





XXVIII.

QUESTIONS ON THE MAP.

Outlines.—What three oceans wash the shores of North America? What great island northeast of the continent? What archipelago between them? What is the general direction of the Arctic coast? What great bay breaks this coast? What island at its entrance? What strait? What bay south? What island near the eastern point of the continent? What gulf and strait cut it off? What is the general direction of the Atlantic coast? What two peninsulas partly enclose the Gulf of Mexico? What strait and what channel lead to that gulf? What island at the entrance? In what archipelago? What ocean current passes through these waters? What is the general direction of the Pacific coast? What peninsula near its northern extremity? What peninsula and gulf break the southwest shore? What long isthmus connects North and South America? Between what smaller isthmuses does it extend?

High Surface. — What two great highlands in North America? Which is the greater? What is its general direction? At what ocean does it end on the north? At what isthmus on the south? (Tehuantepec.) What mountains near its western border? What high plain forms its eastern part? What mountains separate this plain from the rest of the highland? What high plateau in the southern part of the highland? What plateau basin near the centre? In what direction does the Eastern Highland extend? What mountain system does it contain? Near which coast of North America are there volcanoes? Near what river is the central group? Where is the greatest group? Where the northern? Name one in each group. What volcano in Iceland?

Lowlands and Drainage.—What plain between the two highlands? What ocean north of it? What gulf south? What name is given to its northern portion? What name to its southern portion? What low swell of land separates the Southern from the Arctic Plain? What low plateau north of the Arctic Plain? What rivers drain the Arctic Plain? What lakes connected with them? What river drains the greater part of the Southern Plain? Name its four chief branches? What chain of lakes in the Southern Plain? What river drains them? What lowland plain between the Eastern Highland and the Atlantic Ocean? Name the chief rivers which drain the Western Highland.

much milder climate and frequent rains, the effect of the warm ocean currents and counter trade-winds of the Pacific.

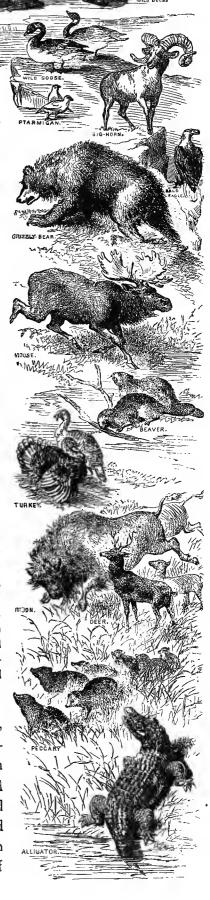
3. The remaining portions of the continent have a more varied climate—warm in the south, colder in the north, and very dry in the Western Highland.

Moist winds from the Gulf of Mexico and the Atlantic Ocean cause frequent rains in the Southern and Atlantic Plains and in the Eastern Highland. Excepting the prairies, these regions were originally one vast forest of oak, chestnut, pine, and other trees, of which a large part in the lowlands has been cleared away. This forest extends into the southern part of the Arctic Plain, where the trees are mostly pines and firs; farther north the trees are small, and at last disappear, and mosses and lichens are the only vegetation.

In winter the tropical rain-belt passes to the south and the counter trade-winds of the Pacific shift in the same direction (see pages 16 and 17). This gives a rainy season of several months to the region between the Pacific Ocean and the Rocky Mountains. The greater part of the moisture falls between the summits of the Sierra Nevada and the coast, and is a chief cause of the vast crops of wheat and other grains grown in that region.

The moist regions in the Rocky Mountains, on the western slopes of the Sierra Nevada, and from the Columbia River to Alaska, are covered with forests of gigantic pines, cedars, and other evergreens.

4. The polar bear, reindeer, musk-ox, moose, walrus, grizzly bear, and many furbearing animals, are found in the northern parts of the continent. Among other wild animals are the deer, wolf, fox, beaver, and alligator. The buffalo or bison, once found in great herds on the high western plain is now nearly extinct. Great numbers of



domesticated animals, such as the horse, ox, sheep, and hog, are possessed by the civilized inhabitants; these were originally introduced from Europe.

5. Cotton is the chief production of the lowlands near the Gulf of Mexico, and corn of the central, and wheat of the northern portions of the Mississippi Valley.

The rain-fall upon the slopes of the lofty mountains bordering the Western Highland leaves but little moisture to be carried over to the table-lands; these, including those parts of the plateau of Mexico that are not visited by the tropical rain-belt, are therefore extremely dry. Though scattered trees border many of the streams, and some of the higher mountains are covered with

forests, by far the larger part of this vast region is nearly destitute of vegetation—the sage-bush and cactus are the principal plants which the parched soil produces.

Questions (I.)—1. What parts of North America have a tropical climate?—2. What parts have a cold climate? What exception to this?—3. What is the climate of the rest of the continent?—4. What wild animals are found in the Arctic Plain? What other wild animals are found? What is said of the buffalo? Of domesticated animals?—5. Where is cotton the chief production? Corn? Wheat?

(II.)—1. What is said of the tropical rains? Of the vegetation? What staples are cultivated? What fruits? What grains? Name some of the forest trees.—2. How do the polar currents affect the northeastern coasts of the continent? What is the climate of the western coast north of Columbia River? Why?—3. What are the chief sources of the rains of the southeastern portions of the continent? Describe these regions. What is said of the vegetation of the Arctic Plain? What is the cause of the rainy season in the region between the Pacific Ocean and the Rocky Mountains? What is its effect? What is said of the forests of the moist regions?—5. Why is the Western Highland so dry? How does this affect the vegetation?

POLITICAL NORTH AMERICA.

XXXI.

QUESTIONS ON THE MAP.

[Capital cities are printed in Gothic type, as WASHINGTON.]

Countries.—What two countries occupy the greater part of North America? Which is farther north? What country northeast of Dominion of Canada? Northwest? Island east? What country southwest of the United States? Southeast of Mexico? Name the countries of North America.

Danish America. — To what country in Europe does it belong? (*Denmark*.) Name its two principal islands. What is the capital of Iceland? Which is the most northern town in North America?

Canada.—What country and island east of it? What general name is given to Canada, Labrador, and Newfoundland? (British America.) To what country of Europe do they belong? (Great Britain.) What mountains in the western part of Canada? What island? What peninsulas project from Canada? What capes? What city is the capital? Name other cities of Canada. Name the capital of Newfoundland.

United States.—What country north of the United States? Southwest? What gulf south? What islands southeast of Florida? Name the capes on the east coast of the United States. What cape at the southeastern point of the United States? What capes on the west coast?

What mountains west of the Sierra Nevada? What two bays on the east coast of the United States? What river flows into the Atlantic Ocean near Sandy Hook? What river between Mexico and the United States? Into what does it flow? What mountains does the Columbia break through? What lake between the Colorado and the Columbia?

What two cities near the head of Chesapeake Bay? What is Washington? (The capital of the United States.) What city northeast of Baltimore? Northeast of Philadelphia? Northeast of New York? At the mouth of the Mississippi? Near the mouth of the Missouri? On Lake Michigan? On the Pacific coast? On the north bank of the Ohio?

To what country does Alaska belong? What is the name of its chief river? Into what does it flow? What islands in the southern part? What town on Baranoff Island? What town on Kodiak Island?

Mexico.—What peninsula and gulf in the northwest of Mexico? What cape at the end of the peninsula? What bay west of Yucatan? What mountains in Northern Mexico? What is the capital? What volcano near it? What city east of Mexico?

Central America.—What waters wash the shores of Central America? What lake in Central America? What city in the northwest? Name the four principal islands in the West Indies. What city in Cuba?

XXXII.

REVIEW EXERCISES.

[For models, see Review of Western Hemisphere, page 9.]

Countries. — Where is it? How bounded? What is the capital?

Model.—Mexico is in the southwestern part of North America. It is bounded on the north by the United States, on the east by the Gulf of Mexico, on the south by Central America and the Pacific Ocean, on the west by the Pacific. The capital city is Mexico.

Danish America? Canada? Newfoundland? United States? Mexico? Central America?

Islands.—Arctic Archipelago? Southampton, B.? Greenland, D.? Iceland, D.? Newfoundland, B.? Bermuda Islands, B.? West Indies? Bahama Islands, B.? Jamaica, B.? Cuba, S.? Hayti, I.? Porto Rico, S.? Vancouver, B.? Queen Charlotte, B.? Baranoff, U.S.?

Note.—The countries to which they belong are thus indicated: Denmark, D.; Great Britain, B.; Spain, S.; United States, U.S.; Independent, I.

Peninsulas.—Labrador? Nova Scotia? Florida? Yucatan? Alaska? California?

Capes.—Farewell? Race? Sable, N.? Cod? Sandy Hook? Hatteras? Sable, S.? St. Lucas? Prince of Wales? Mendocino? Flattery?

Isthmuses. - What countries does it connect?

Tehuantepec? Panama? Isthmus of Central America?

Mountains.—Appalachian? Rocky? Sierra Madre? Sierra Nevada? Cascade? Coast ranges? Popocatepetl (v.)? Hecla (v.)?

Seas, Gulfs, and Bays.—Baffin? Hudson? James? St. Lawrence? Delaware? Chesapeake? Mexico? Campeachy? Honduras? Behring? Caribbean? California?

Straits.—Davis? Hudson? Belle Isle? Florida? Behring?

Rivers.—Yukon? Mackenzie? Churchill? Nelson? Severn? St. Lawrence? Hudson? Mississippi? Missouri? Arkansas? Ohio? Rio Grande? Red? Colorado? Columbia?

Lakes. - Where situated? What outlet has it?

Great Bear? Great Slave? Athabasca? Winnipeg? Superior? Michigan? Huron? Erie? Ontario? Great Salt? Nicaragua?

Cities and Towns.—In what country is it? In what part of it? On or near what water?

Reykjavik? Upernavik? Halifax? Ottawa? Montreal? Quebec? St. Johns? Washington? Philadelphia? Boston? New York? Baitimore? New Orleans? Cincinnati? St. Louis? Chicago? San Francisco? Mexico? Vera Cruz? Guatemala? Hayana?



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MAP. OUESTIONS ON THE

What branch has it? Which branches rise in the Western What smaller highland in the eastern half? of this highland? What plain between the two highlands? branches. Which branch rises in the Eastern Highland? (See Physical Map of North America.) What plain east What great river drains the Central Plain? Name its chief Which half of the United States is a highland? western half.)

Highland? Name the great lakes in the northern part of | the northern plateaus? The southern? What lowland basin the Central Plain. Where are the prairie regions?

land? What rivers cross the Great Plains? What name What plains in the eastern part of the Western Highhave they in the south? (Llano Estacado, or Staked Plain.) What belt in the north?

in the Great Basin? (Why is it salt?) What river drains What mountain system crosses the Western Highland from north to south near its centre? What mountains near its western border? What two plateaus between these systems? What cross-range separates them? What large lake

west of the Sierra Nevada?

the shores of Lake Superior? In the central part of the southern part of the Central Plain? In the central part? In the northern part? What minerals and metals are found in the Eastern Highland? In the Western Highland? On Central Plain? Where is salt obtained? Lumber? Petro-What are the staple agricultural productions leum? Coal? Iron?

What plants characterize the dry parts of the Western Highland?

JOIL Д П Щ 口 Д

XXXV.

STATES. WESTERN HALF OF THE UNITED

1. The western half of the United States is a broad highland. It is divided by the Rocky Mountains into two nearly equal sections. 2. The eastern section is a gently descending slope known as the Great Plains.

like waves of the ocean. These plains gradually increase in elevation from the east, until at the base A large part of this region is a succession of long rolls of the mountains they are from 5000 to 6000 feet too shallow to be navigated, their average fall being five feet to the mile, that of the Mississippi, Ohio, and St. Lawrence, including the Great Lakes, being only about four inches. The Red and the Arkansas high, or twice the average height of the Alleghanies. Excepting the Missouri and the Yellowstone, the rivers which cross these plains are too swift and are navigable in the eastern lowland.

as the Plateau Belt, is bordered by the Rocky 3. The western section of the highland, known Mountains on the east, and on the west by the low Coast ranges of the shores of the Pacific.

Between these, and near the Coast ranges, are the high chains known as the Sierra Nevada and Cascade Mountains.

The elevated tract within these lofty mountain walls The Sierra Nevada, Cascade, and Rocky Mountains average from 9000 to 12,000 feet, with many peaks are the loftiest ranges in North America. They of over 14,000 feet.

has three principal plateaus. It is ribbed with numerous short parallel mountain chains, and has been likened to a sea filled with waves many thousand feet high. The Great Basin occupies the central part of the Plateau Belt. It encloses Great Salt Lake and other salt lakes from the Colorado Plateau by the lofty range of the which have no outlet to the ocean. It is separated Wahsatch Mountains, and is from 3000 to 4000 feet above the level of the sea. The Colorado Plateau occupies the southeastern part.

It is from 6000 to 7000 feet high.

The plain of the Columbia, or Spokane Plateau, occupies the northern part.

It is about 2000 feet above the Pacific Ocean, and about 1000 feet above the Columbia River.

19.¹ ...

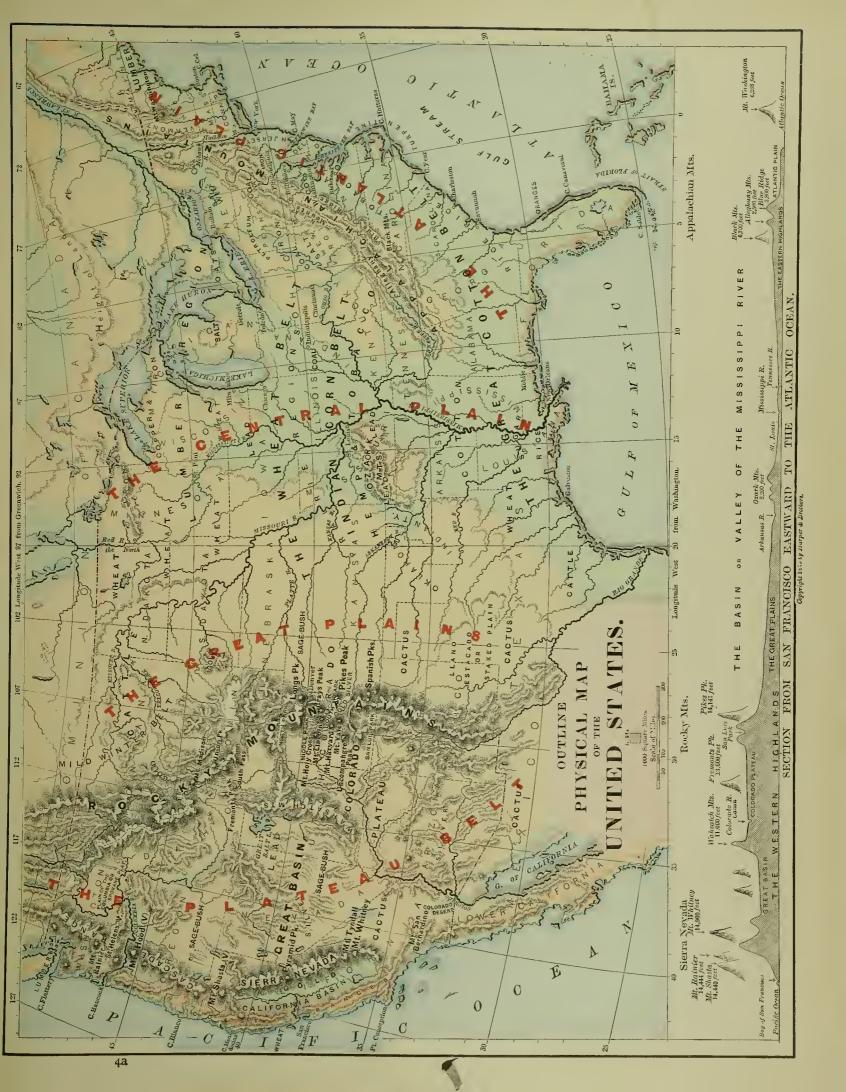
POSITION, AREA, AND SURFACE.

1. The United States occupies the middle part of North America. It extends from Canada on the north to the Gulf of Mexico on the south, and from the Atlantic Ocean to the Pacific. Its average breadth from north to south is about 1300 miles; its average length from east to west is about 2500 miles. The area of the United States is rather more than 3,000,000 square miles, not including Alaska, which contains over 500,000 square જાં

3. **The surface** presents two nearly equal divisions of widely different character—the high western half and the low eastern half.

REMARK.—Each of these has several important and well-marked natural subdivisions, which will be made the basis for arranging the states into groups for convenience of study. (See page 29.) Trited States?-2. What is the area?-3. How is the surface divided? (II.)-1 What are the northern and southern limits of the United States? The eastern and western limits? What is the average breadth? The average length?

Questions (I.)-1. What part of North America is occupied by the



4. Three large and rapid rivers **drain** the greater part of this Plateau Belt: the Columbia River on the north breaks through the lofty Cascade range, and flows into the Pacific; the Colorado on the south reaches the Gulf of California after passing through a number of great cañons, which are a series of the most frightful mountain gorges in the world; the Rio Grande flows from the mountains bordering the Colorado Plateau through a long, narrow, and elevated valley to the Gulf of Mexico.

The beds of nearly all the rivers of the entire highland region are far below the general level of the country through which they flow.

5. **The Western Highland** has a warm and very dry climate.

The warm southwest winds from the Pacific discharge most of their moisture as rain or snow on the high cold slopes and summits of the Sierra Nevada and Cascade ranges, and much of the remaining portion upon the lofty sides and tops of the Rocky Mountains. The plateaus are consequently dry and barren, while the coast regions have abundant rain and, particularly towards the north, are covered with dense forests. In like manner, the winds from the Atlantic and the Gulf of Mexico lose their moisture before they penetrate so far inland, and in consequence a large part of the Great Plains at the foot of the Rocky Mountains is one of the most desolate and arid regions of the continent. The cactus and the sage-bush are the characteristic vegetation; they indicate a very dry climate. Wherever the streams from the melting snows of the mountains can be used for irrigation abundant crops can be raised, but the greater part of the entire highland is hopelessly barren.

6. The chief wealth of the Western Highland is in the exhaustless mines of gold, silver, and other valuable minerals with which the entire mountain district abounds.

Nowhere else on the globe is there known to be so extensive a deposit of the precious metals. There are hundreds of thousands of square miles rich with ores of gold and silver.

7. The bison, or American buffalo, a large and ox-like animal, once roamed in vast herds over the Great Plains and in the mountain valleys. They have been eagerly hunted for their skins or for sport, and are now nearly, if not quite, exterminated.

For unknown ages these animals had furnished the Indians with food, and with materials for tents and clothing.

8. Between the Western Highland and the Pacific lies the small rich lowland of the California Basin.

Questions (I.)—1. What is the character of the western half of the United States? By what and how is it divided?—2. What and where are the Great Plains?—3. What is the western half of the highland called? What mountains border it? What high mountains parallel and near the Coast ranges? Where is the Great Basin? Where is the Colorado Platean? Where is the plain of the Columbia?—4. How many great rivers drain the Platean Belt?—What is said of the Columbia? Of the Colorado? What are the cañons? Which is the third great river? What is said of most of the river beds?—5. What is the general character of the climate of the Western Highland?—6. In what is the chief wealth of the highland?—7. What is said of the buffalo?—8. What and where is the California Basin?

(II.)—2. What is said of a large part of the Great Plains? Where are the plains highest? How high are they? Which of their rivers are navigable? Which are not? Why?—3. Which are the highest mountains in North America? How high are they? How many principal plateaus? With what is the whole tract ribbed? To what has it been likened? What does the Great Basin enclose? By what separated from the Colorado Plateau? How high is it? How high is the Colorado Plateau? How high is the plain of the Columbia?—5. What kind of a climate has the Plateau Belt of the Western Highland? Why? The Great Plains? Why? The Coast regions? Why? What plants are characteristic? What do such plants indicate? What is said of irrigation? What is the source of the water that may be used for this purpose? What portion of the region is barren?—6. What is said of the quantity of gold and silver?—7. What is further said of the buffalo?

XXXVI.

EASTERN HALF OF THE UNITED STATES.

1. The eastern half of the United States presents a strong contrast to the western half. It is fertile and well watered throughout.

It contains the Eastern Highland and two important lowland plains.

2. The Eastern Highland is small and low in comparison with the Western.

It consists of the several parallel ranges of the Appalachian system, and extends from the Dominion of Canada almost to the Gulf of Mexico. Its highest peaks are about as high as the plains at the foot of the Rocky Mountains. It contains many fertile elevated valleys, but no extensive plateaus.

This highland is rich in water-power, in timber, and in mines of coal and iron. At its nearest approach to the Atlantic coast it is intersected by a remarkable depression, which contains the valleys of the Hudson and the Mohawk, and forms the most important natural highway of commerce on the whole continent.

- 3. The Eastern Highland divides the lowlands into two unequal plains—the Atlantic Plain on the east, and the Great Central or Mississippi Plain on the west.
- 4. The Great Central Plain lies between the two highlands.

It extends from the Gulf of Mexico, where it joins the Atlantic Plain, to the Great Lakes, where it unites with a narrow belt of lowland in the St. Lawrence Valley.

The Valley of the Mississippi includes not only most of the Great Central Plain, but all of the land between the crests of the Rocky Mountains on one side and those of the Alleghanies on the other. It therefore embraces a large part of both highlands. It has been likened to a broad trough, the Mississippi lying in the lowest part.

5. The Mississippi and its branches together constitute the most extensive system of navigated rivers in the world.

The Amazon system, in South America, is larger, but is as yet but little navigated.

The Missonri is by far the most important of the tributaries, being longer than the entire course of the Mississippi itself, and, like it, navigable almost to its source. 6. The Atlantic Plain is a long belt of lowland between the Eastern Highland and the ocean.

It is widest at the south, but narrows rapidly towards the mouth of the Hudson River, where it almost disappears. Farther east it again widens to the Gulf of St. Lawrence.

The rivers of the Atlantic Plain cross it at right angles to the line of the highland, in which they have their sources.

Most of them are navigable till interrupted by falls or rapids at some distance from the sea. These falls furnish valuable waterpower, and have determined the location of many important cities.

The Atlantic Plain is drained by numerous short, separate, and parallel rivers, and all the rest of the country by a few great river systems.

7. The climate of the low eastern half of the United

States is in general much cooler than that of the Western Highland in the same latitude.

Frequent rains are brought at all seasons by the moist winds from the Gulf of Mexico, the Atlantic, and the Great Lakes. The rain-fall on the Atlantic coast increases towards the south; on the Pacific coast towards the north; Lower California in Mexico is almost rainless. The winters of the eastern half are long and severe in the north, but mild in the south; the summers are generally hot.

8. The fertile soil, warm summers, abundant rains, and great range of latitude make the eastern half of the United States, in the quantity, variety, and value of its agricultural productions, the richest large section of the globe inhabited by a single nation.

The value of these advantages is greatly increased by the other physical conditions already considered. The average fall of the Mississippi, the Missouri, and their chief branches in the Central Plain, is only about four inches to the mile; that of the 3t. Lawrence, including the Great Lakes, is still less: this opens the whole region to steam navigation. The generally level face of the country makes it easy to construct railroads. canals, and common roads. Of railways there were in 1889 over 154,000 miles in operation, or two thirds as many as in all the rest of the world. It will therefore be seen that—

- 9. The physical geography of the eastern half of the United States gives it agricultural and commercial advantages unequalled by those of any other country on the globe.
- 10. The eastern half of the United States may be divided into two regions differing remarkably in vegetation, in consequence of difference in rain-fall.

Dense forests cover the Atlantic Plain, the Eastern Highland, and the neighboring parts of the Great Central Plain, except where cleared for the purpose of cultivation.

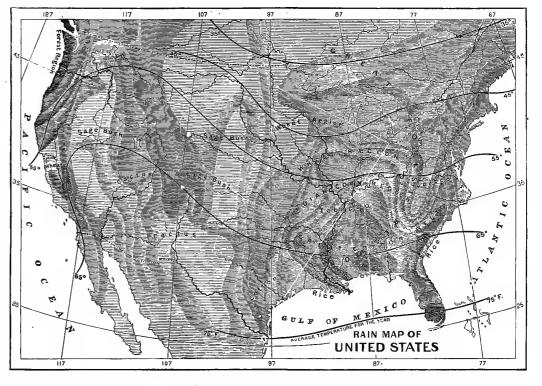
If from Toledo on Lake Erie two lines be drawn, one to Galveston on the Gulf of Mexico, and the other to the head-waters of the Red River of the North, nearly all the forests in the United States east of the Cascade Mountains will be east of these lines.

The southern portions of both plains constitute the region of abundant summer showers; without these cotton could not be cultivated. Rice, sugar-cane, Indian corn, and tobacco are also characteristic agricultural productions. (See Rain Map.)

Immense prairies occupy the rest of the Great Central Plain.

The prairie region is broad in the north and narrow in the south.

It has long and frequent summer droughts. These do not pre-

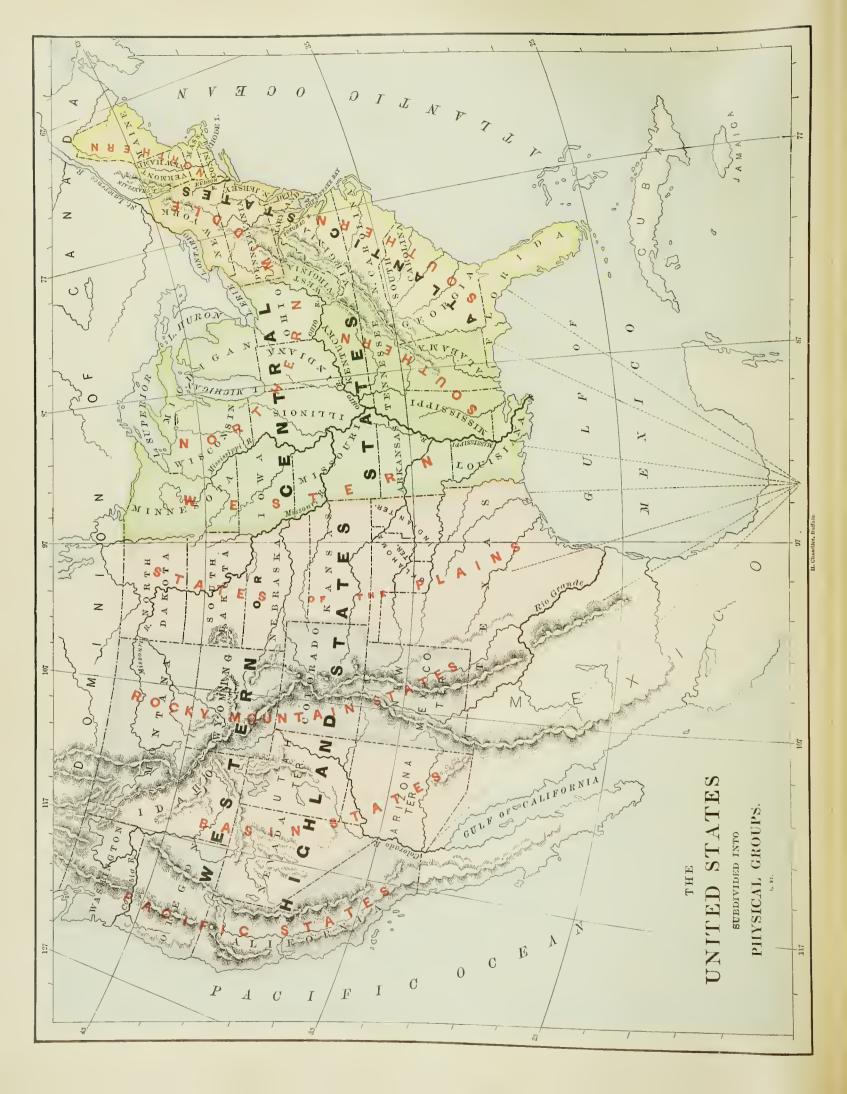


vent the extensive cultivation of wheat and other grains, which are produced in enormous quantities. The prairies are rapidly being converted into farms covered with hedge-rows, orchards, and forest trees.

11. Large wild animals, such as wolves, wild-cats, panthers, bears, and deer, once abounded. Though still found in some districts, they are greatly reduced in numbers. The country now contains millions of domesticated animals, among which are cattle, sheep, swine, and horses.

Questions (I.)—1. What is the character of the eastern half of the United States? In what two particulars? What subdivisions does it contain?—2. How does the Eastern Highland compare with the Western? In what is it remarkably rich? By what is it intersected? What valleys in this depression? What does it form?—3. How does this highland divide the lowlands? What name is given to each?—4. Where is the Great Central Plain?—5. What is said of the Mississippi River? Of the Missouri River?—6. What and where is the Atlantic Plain? How do its rivers cross it?—7. What is said of the climate of the eastern half of the United States?—

[For the remaining questions on this section, see page 29.]



[Questions on Section XXXVI.-Continued from page 27.]

8. What four things make it one of the richest portions of the world?

—9. What is said of its agricultural and commercial advantages?—10. How may it be divided in regard to vegetation? Where are the forest regions? The prairie regions?—11. What is said of wild animals? Of domesticated animals?

extent? What is said of its peaks? What does it contain?—4. What

is the extent of the Great Central Plain? In what valley does it mostly lie? What else does the Mississippi Valley include? To what has it been likened?—5. What is said of the Amazon system?—6. Where is the Atlantic Plain widest? Where narrowest? What is said of the navigation of its rivers? Of what use are these falls? In what respect does the drainage of this plain differ from that of other portions of the country?—7. What cause the frequent rains in the low eastern half of the United States? In what direction does the rain-fall increase on the Atlantic coast? On the Pacific coast? What part is almost rainless?

What is said of the winters? Of the summers?—8. What is said of the average fall of the Mississippi and its branches? Of the St. Lawrence? What is the effect of this? What advantage results from the level face of the country? How many miles of railways in 1889?—10. What two lines separate the treeless regions of the West from the forest regions of the East? What important production particularly depends upon frequent showers? What are the other agricultural productions? What is the form of the prairie region? What is said of its climate? What are the staple productions? What change are the prairies undergoing?

POLITICAL UNITED STATES

XXXVII. DIVISIONS AND SUBDIVISIONS OF THE UNITED STATES,

1. For convenience of study, the United States may be divided into sections and groups.

2. This division is based upon certain facts of the physical geography of the country:

First. One half of the country is low, the other half high.

Second. The lines of, the coasts, mountains, plateaus, and of the Mississippi River, lie in a general north and south direction. These lines divide the country into seven nearly parallel physical belts; two of these belts are east of the Mississippi River, and five of them are west of it.

Third. The Ohio River, the Potomac River, and the Chesapeake Bay form a well-marked line that divides the two eastern belts into groups of states which have widely different climatic, industrial, and social peculiarities.

Fourth. The northern part of the most eastern belt is again divided by the line of the Hudson River and Lake Champlain.

1 8	SOUTH NORTH CENT	CENT CENT	ENI	CENTRAL STATES.	S,	STATES OF THE	HIGH HALF. WESTERN OF HIGHLAND STATES. STATES OF THE ROCKY MOUNTAIN BASIN	H A L F. HLAND STAT BASIN	
ATLANTIC STATES. CENTRAL STATES. CENTRAL STATES. CENTRAL STATES.	ATLANTIC STATES. CENTRAL ST	CENTRAL SI	LATES.	CENTRAL STATES.	CENTRAL STATES.	PLAINS.	STATES.	STATES.	STATES.
1. New York. 1. Virginia. 1. Ohio.		1. Ohio.		1. West Virginia. 1. Minnesota. 1. No. Dakota 1. Montana.	1. Minnesota.	1. No. Dakota	1. Montana.	1. Idaho.	1. Alaska T.
2. New Hampshire. 2. New Jersey. 2. North Carolina. 2. Indiana.	2. North Carolina. 2. Indiana	2. Indiana		2. Kentucky.	2. Iowa.	2. So. Dakota 2. Wyoming.	2. Wyoming.	2. Nevada.	2. Washington.
3. Pennsylvania. 3. South Carolina. 3. Illinois.	3. South Carolina. 3. Illinois	3. Illinois.		3. Tennessee.	3. Missouri.	3. Nebraska 3. Colorado.	3. Colorado.	3. Utah T.	3. Oregon.
4. Delaware. 4. Georgia. 4. Wiscom		4. Wiscon	sin.	4. Wisconsin. 4. Alabama.	4. Arkansas.	4. Nansas	4. Nausas 4. New Mexico I. 4. Arizona I. 4. California.	4. Arizona T.	4. California.
5. Maryland. 5. Florida. 5. Michigan,		5. Michiga	in.	5. Mississippi.	5. Louisiana.	6. Oklahoma T.			
(Dist. of Columbia.)						7. Texas			
			-1			72			

Nore .- The North Atlantic States are often called the Eastern States, or New England; the Middle Atlantic States; the five South Atlantic States and the five South Central States, together with Arkansas, Louisiana, and Texas, the Southern States; and the rest, the Western States, Many other terms in frequent use require no explanation; as, the Gulf States, Lake States, Mississippi States, Alleghany States, Cotton States, etc.

For the sake of convenience, the territories are grouped with the states in this table.

6. There are forty-four states, six territories, and one federal district, called the District of Columbia.

All but thirteen of the states are in the low half. All the territories are in the high half.

Note.—The District of Columbia covers only 70 square miles, and is not represented on the map.

what is this division based? What is the first fact? The second? How do these lines divide the country? How many of these belts are east of the Mississippi? How many west of it? What is the third fact? What further division of the most eastern belt? Which half of parts may the low half be divided? Which contains one more state than the other? Into how many and what groups may the Central States be divided? How many states in each? Into how many and what groups may the Central States be divided? How many states in each? Into how many and what groups may the Central States be divided? How many states in each? Into how many and what groups may the Central States be divided? How many states in each? Into how many states in each? Into how many and half? Into how many and what groups may the Central States be divided? How many states in each? Into how many states in each? Into how many and half? Into how many states in each? Into how many and half? Into how many states in each? Into how many and half? Into how many states in each? Into how many and half? Into how many and half? Into how many states in each? Into how many each state? Into how many states in each? I

each? Into how many and what groups may the Western States be divided? How many states in each? Name the North Atlantic States. The Middle Atlantic. The South Atlantic. The North Central States. The South Central. The West Central. The States of the Plains. The Rocky Mountain States. The Basin States. The Pacific States.—

3. How many states are there? How many territories? How many federal districts? What is it called? How many of the states are in the low half? In which half are the territories? What is a territory? (See page 35.) What large territory is not shown upon this



QUESTIONS ON THE MAP.

What group of states lies farthest east? What is the capital of each? Where situated? Name one other city in each. Where situated? Which of these states has two capitals? Name the capital and one or two other cities in each of the Middle Atlantic States. In the South Atlantic States. In the North Central States. In the South Central. In the

West Central. In the States of the Plains. In the Rocky Mountain States. In the Basin States. In the Pacific States. Which of these cities are on or near the Atlantic Ocean? The Gulf of Mexico? On the Great Lakes? On Lake Champlain? On the Ohio River? On the Mississippi River? On the Missouri River? In or near the Rocky Mountains? Between the Rocky Mountains and the Sierra Nevada and Cascade Mountains? West of these last chains?

In what direction from Indianapolis is Louisvil Cincianati? Pittsburgh? Cleveland? Detroit? Ccago? Milwaukee? In what direction from Chic is Milwaukee? Davenport? St. Paul? Omal Buffalo? In what direction from St. Louis is Oma Evansville? Memphis? Louisville? Denver? what direction from New Orleans is Galveston? bile? Vicksburg? Montgomery?

Which is the largest state in the Union? The sn



? The most northeasterly? Southeasterly? Southy? Southwesterly? Which state is the longest sea coast? Lake coast? What states esparated by the Mississippi River? By the Ohio ver? Missouri River?

What parallel bounds the United States on the rth? (49°.) On the south? (25°.) In what longile from Greenwich is its eastern point? Its western int? What states are crossed by the meridian of

Washington? What is the longitude of Washington?*
Of Boston? New York? Philadelphia? Charleston?
Cincinnati? Chicago? St. Louis? New Orleans?
What cities on or near the parallel 40° N,? In what zone is the United States?

What is the general direction of the rivers east of the Appalachian Mountains? Name one Atlantic river of the North Atlantic States. Name three in the * Use longitude from Greenwich. Middle Atlantic States. Seven in the South Atlantic. Three flowing into the Gulf of Mexico east of Mississippi River. Five west of it. Name four eastern branches of Mississippi River. Five western branches. Four southern branches of the Ohio. Three northern branches. Three western branches of the Missouri. Two branches of the Columbia. The chief branch of the Colorado. Two rivers in California. What river forms part of the western boundary of Minnesota?

XXXVIII.

REVIEW OF POLITICAL MAP OF UNITED STATES.

Bound the state. Name the capital. The largest city.

THE LOW HALF.

	ATLANTIC STATES.
,	Capital. Largest City. 1. Maine
Northern Division.	2. New Hampshire . Concord
Middle Division.	1. New YorkAlbanyNew York2. New JerseyTrentonJersey City3. PennsylvaniaHarrisburgPhiladelphia4. DelawareDoverWilmington5. MarylandAnnapolisBaltimore
Southern Jivision.	1. Virginia
	CENTRAL STATES.
Northern Division.	1. Ohio
Southern Division.	1. West Virginia Charleston Wheeling. 2. Kentucky Frankfort Louisville. 3. Tennessee Nashville Nashville. 4. Alabama Montgomery Mobile. 5. Mississippi Jackson Vicksburg.
1	1. MinnesotaSt. PaulMinneapolis.
Western Division.	 Iowa Des Moines Des Moines. Missouri Jefferson City St. Louis. Arkansas Little Rock Little Rock.

5. Louisiana......Baton Rouge.... New Orleans.

THE HIGH HALF. WESTERN OF HIGHLAND STATES.

	V. —
States of the Plains.	Capital. Largest City. 1. North Dakota Bismarck Fargo. 2. South Dakota Pierre Sioux Falls. 3. Nebraska Lincoln Omaha. 4. Kansas Topeka Leavenworth. 5. Indian T. Winita. 6. Oklahoma T. Guthrie Guthrie, 7. Texas Austin Dallas.
Rocky Mountain States.	1. MontanaHelenaButte. 2. WyomingCheyenneCheyenne. 3. ColoradoDenverDenver. 4. New Mexico TSanta FéSanta Fé.
Basin States.	1. Idaho
Pacific States.	1. Alaska TSitkaJuneau. 2. WashingtonOlympiaSeattle. 3. OregonSalemPortland. 4. CaliforniaSacramentoSan Francisco.

Mountains.—Where situated?

Appalachian? White? Adirondack? Catskill? Alleghany? Blue Ridge? Rocky? Wahsatch? Sierra Nevada? Cascade? Coast Range? Rivers.—Where does it rise? In what direction does it flow? Through

what states? Into what body of water?

ATLANTIC SYSTEM.—St. Lawrence? Connecticut? Hudson? Delaware? Susquehanna? Potomac? James? Roanoke? Cape Fear?

Santee? Savannah? Altamaha?

GULF SYSTEM.—Appalachicola? Mobile? Pearl? Mississippi?
Sabine? Trinity? Brazos? Colorado? Rio Grande?

MISSISSIPPI SYSTEM.—Yazoo? Ohio? Illinois? Wisconsin? Minnesota? Des Moines? Missouri? Arkansas? Red?

Ohio System.—Tennessee? Cumberland? Kentucky? Monon gahela? Alleghany? Scioto? Wabash?

MISSOURI SYSTEM.—Yellowstone? Platte? Kansas?

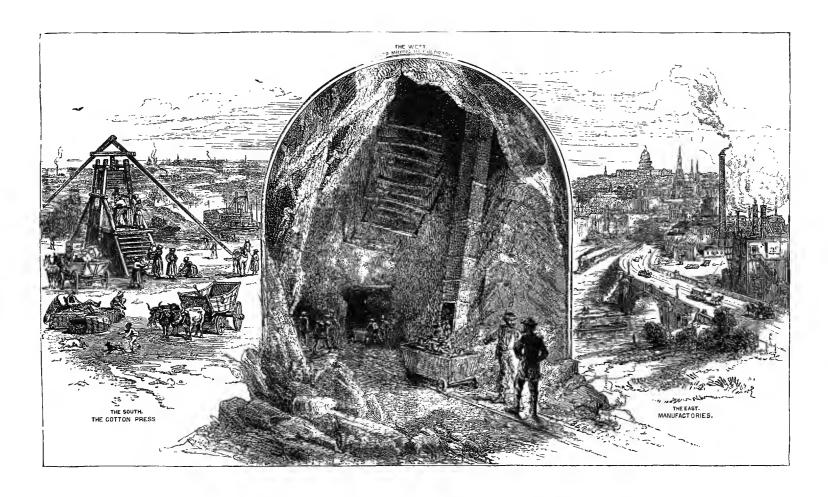
Pacific System.—Columbia? Willamette? Snake? Sacramento? San Joaquin? Colorado? Gila?

Lakes .- Where situated?

St. Lawrence System.—Champlain? Ontario? Erie? Huron? Michigan? Superior?

LARGEST OITIES IN THE UNITED STATES. (OENSUS OF 1890.)

Albany, N. Y	94,923 105,287 65,533 434,439 448,477 48,866 806,343 255,664 70,028 58,313 54,955 1,099,850 296,908 261,353 88,150 61,220 106,713 50,093 205,876	Erie, Pa Evansville, Ind Fall River, Mass Grand Rapids, Mich. Harrisburg, Pa Hartford, Conn Hoboken, N. J Indianapolis, Ind. Jersey City, N. J Kansas City, Kan Kansas City, Mo Lawrence, Mass Lincoln, Neb Los Angeles, Cal Louisville, Ky Lynn, Mass Manchester, N. H Memphis, Tenn	40,634 50,756 74,398 60,278 39,385 53,230 43,648 105,436 163,003 38,316 132,716 44,654 55,154 50,395 161,129 77,696 55,727 44,126 64,495	Minneapolis, Minn. Nashville, Tenn. Newark, N. J. New Bedford, Mass. New Haven, Conn. New Orleans, La New York, N. Y. 1, Oakland, Cal. Omaha, Neb. Paterson, N. J. Peoria, Ill. Philadelphia, Pa. 1, Pittsburgh, Pa. Portland, Ore. Providence, R. I. Reading Pa. Richmond, Va	48,682 140,452 78,347 41,024	Saginaw, Mich Salt Lake City, Utah. San Francisco, Cal Savannah, Ga Scranton, Pa Seattle, Wash Somerville, Mass Springfield, Mass St. Joseph, Mo St. Louis, Mo St. Paul. Minn Syracuse, N. Y Toledo, O Trenton, N. J Troy, N. Y Utica, N. V. Washington, D. C. Wilmington, Del Worcester, Mass	46,322 44,843 298,997 43,189 75,215 42,837 40,152 44,179 52,324 451,770 133,156 88,143 81,434 57,458 60,956 44,007 230,392 61,431 84,655
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POLITICAL UNITED STATES.

XXXIX.

DESCRIPTION.

- 1. The United States consists of forty-four states, six territories, and a federal district.
- 2. The population in 1890 was about 63,000,000. About 57,000,000 were in the low and fertile eastern half of the country; and, of the remainder, about 3,000,000 were west of the Rocky Mountains.
 - 3. The white race numbered about 55,000,000.

They are chiefly the descendants of emigrants from England, Ireland, and Germany. Negroes and mulattoes, the descendants of slaves brought from Africa, numbered nearly 7,500,000. Of Indians there were about 250,000; they are nearly all in the Western Highland. The Chinese numbered about 100,000.

4. Agriculture is the leading industry. Its chief seats are the Central and Atlantic Plains and the California Basin.

Among the principal agricultural products are the grains, which, in the order of their latitude, are rice, corn, wheat, rye, oats, and barley; corn and wheat are the most abundant. The other chief products in the same order are sugar, cotton, tobacco, hemp, hay, and potatoes; of these cotton is commercially the most important.

5. Grazing is an important occupation in the agricultural regions.

The prairie and the corn districts of the Central Plains furnish

large quantities of live stock, beef, pork, and wool. The chief supplies of butter and cheese are from the northern half of the Eastern Highland.

6. Mining is another industry of great importance.

The principal mines of coal are in the Eastern Highland; those of iron in the Eastern Highland and the Lake Superior region; those of gold and silver in the mountains of the Western Highland; those of lead in Nevada, Utah, Colorado, Idaho, Montana, Missouri, and Kansas; and those of copper in Montana and Arizona and on the shores of Lake Superior. Agriculture, grazing, and mining supply most of the raw materials for manufactures.

7. **Manufacturing** industry has its chief seats in the states north of the Potomac and the Ohio. This is because of their abundant water-power, fuel, and labor. The principal manufactures are cotton and woollen goods leather, tools and machinery, flour, lumber, and salt.

Fishing is a leading interest in some of the Atlantic States.

- 8. Commerce is of two kinds—domestic and foreign. **The domestic commerce** of the United States is the distribution within its own limits of imported articles and domestic manufactures in exchange for agricultural, grazing, mining, and forest products.
- 9. Three great water routes to the sea and many lines of railway are the principal channels of this commerce.

The first water route is by the Great Lakes and the St. Lawrence to the ocean.

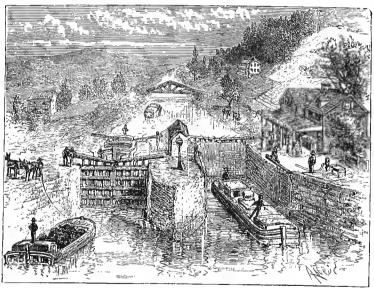
The second water route is by the Great Lakes, the Erie Canal, and the Hudson River to New York. This is the principal commercial route of the continent.

The port of New York is remarkable for the peculiar advantages of its position and for its excellent harbor. It is the chief natural doorway to the populous eastern half of the United States. It lies at the outlet of a narrow valley which is the only deep cleft and water-way entirely crossing the Appalachian Highland. By the broad and deep Hudson and the canal through the Mohawk Valley it has easy access to the group of inland seas known as the Great Lakes. By the Champlain and Hudson Canal it connects with the Lower St. Lawrence.

Through this valley the tide of emigration from Europe and the Atlantic States flowed during the middle third of the nineteenth century, spreading out over the fertile plains south of the Great Lakes and beyond the Mississippi, and changing a wilderness into the home of industrious millions. As one of the results of their industry, the commerce of this region already greatly exceeds in value the entire foreign commerce of the nation.

The third water route is by the Mississippi and its branches to New Orleans. By this route the grain, flour, pork, beef, coal, and machinery of the North find a market in the Cotton States, the West Indies, and Europe.

All these water routes radiate from or converge towards the low plains of the Upper Mississippi and its branches, so rich in grains and live stock.

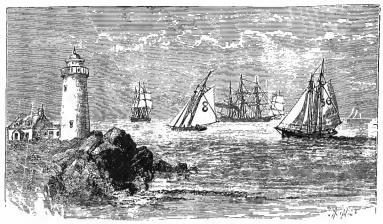


CANAL AND LOCKS.

10. The railway routes are much more numerous and complicated.

The principal lake-ports, sea-ports, and other cities are connected by railroads. These railroads and their branches cover the low half of the country, and especially its northern part, like a network of iron. The navigation of the Great Lakes and the St. Lawrence is prevented for several months of each year by ice: this gives still greater importance to the railway system. Four great railroads across the Western Highland already unite the commercial system of the East with that of the Pacific coast, and others are in process of construction.

Thousands of vessels ply between the principal ports, and thus complete the means for the transportation of goods, passengers, and mails. This coasting trade is much greater than the entire foreign commerce.



LIGHT-HOUSE AND PILOT-BOATS

At the entrance of harbors, on capes, and at dangerous shoals of the ocean and the lakes, the General Government maintains light-houses to guide and warn vessels at night.

Thousands of miles of telegraph wires convey the information by which this great commercial system is regulated, and the newspapers promptly report the state of distant markets.

Domestic commerce is the chief means by which the different parts of the United States are firmly and peaceably united through mutual interests and mutual dependence. It is itself dependent upon the physical geography of the country.

- 11. Foreign commerce is the exchange of commodities between different countries. The foreign commerce of the United States is chiefly with England, Germany, and France in Europe; with Canada, the West Indies, and Brazil in America; and with China and Japan in Asia.
- 12. **The principal exports** are cotton, breadstuffs, provisions, petroleum, gold, and tobacco. The greater part, especially of the cotton, goes to England. South America and the West Indies take large amounts of provisions, flour, lumber, and other manufactures.
- 13. **The leading imports**, and the principal countries from which they come, are dry goods from England and France, sugar from the West Indies, coffee from Brazil, hides from South America, tea from China and Japan, and iron and tin from England.

The greater part of the foreign commerce centres in the sea-ports of the northern half of the Atlantic coast; these have the best harbors. At least two thirds of all the imports and nearly one half of all the exports of the United States pass through the port of New York.

Other leading sea-ports are Boston, Baltimore, Philadelphia, New Orleans, and San Francisco.

This foreign commerce is chiefly carried on by means of large steam vessels. It is in large part directed and controlled by means of several submarine telegraph lines, the cables lying upon the bed of the ocean. One line is to England by way of Newfoundland and Ireland; another is to France by way of Massachusetts and the island of St. Pierre, near Newfoundland.

Questions (I.)—1. Of what does the United States consist?—2. What was the population in 1890? How distributed?—3. How many belonged to the white race?—4. What is the leading industry? Where are its chief seats? Name the grains in the order of their latitude. Which are the most abundant? Name the other chief

products in the same order. Which is the most important?-5. What is said of grazing?—6. What of mining?—7. Where are the chief seats of manufacturing industry? Why? Name the principal manufactures. Where is fishing a leading interest?-8. How many kinds of commerce? What is domestic commerce?—9. What are its principal channels? Which is the first water route? The second? What is said of it? The third? What is said of it?—10. What is said of the railway routes?—11. What is foreign commerce? With what countries in Europe is the greater part of the foreign commerce? With what countries in America? In Asia?—12. Name the principal exports. What share is taken by England? By South America and the West Indies?—13. What are the chief imports? From what countries?

(II.)-3. From whom are the white inhabitants of the United States descended? How many negroes? From whom descended? How many Indians? Where are they? How many Chinese?-5. Where are the chief supplies of animal food and of wool obtained? Of butter and cheese?-6. Where are the principal coal and iron mines? Of gold and silver? Of lead? Of copper? What industries supply the raw materials for manufactures?-9. What is said of New York? Of the valleys of the Hudson and Mohawk? Of the Champlain and Hudson Canal? Of emigration? What is one of the results? From what part of the country do the great water routes radiate?-10. What is said of the railroads? Why is the railroad system important? What is said of the railroads to the Pacific? Of the coasting trade? How does it compare with the foreign commerce? What is said of light-houses? Of telegraphs and newspapers? What is said of domestic commerce? Upon what is it dependent? -13. Where does the greater part of the foreign commerce centre? Why? What part of the imports are received at New York,? Of the exports? Name other leading ports. How is the foreign commerce chiefly carried on? How is it directed and controlled? Where are the ocean cables?

XT. GOVERNMENT.



THE CAPITOL AT WASHINGTON

1. The General Government of the United States and the several state governments are all republican, or representative, in form.

The United States is the most extensive and powerful republic in the world.

- A republican government is one under which those who make the laws and those who execute them are elected for limited periods
- A state is a division of the United States, controlling its own internal affairs, but united with the other states under the General Government.
- A territory is a portion of the country not yet admitted as a state, because it has not sufficient population.
- 2. The General Government has three distinct departments—the legislative, the executive, and the judicial.
- 3. The legislative department, or Congress, consists of two distinct bodies-the Senate and the House of Representatives. ţа

- A law is made by the consent of both Houses and the approval of the President of the United States. If the President returns a bill without his approval, he is said to veto it; it may afterwards become a law if two thirds of each House again approve it.
- 4. The Senate consists of two members from each

The senators are chosen by the State Legislatures, and hold office for six years. Their present number is 88. The Vice-President of the United States is the presiding officer.

5. The House of Representatives consists of members chosen directly by the people of the several states.

They are the only officers of the General Government so chosen. They hold office for two years. There are at the present time 332 members, each state being entitled to one for every 175,000 of its inhabitants. The representatives elect one of their own number as presiding officer or Speaker. Each organized territory has a delegate in this House; he may take part in the discussion of all matters relating to his territory, but has no vote.

6. The President of the United States is the chief executive officer.

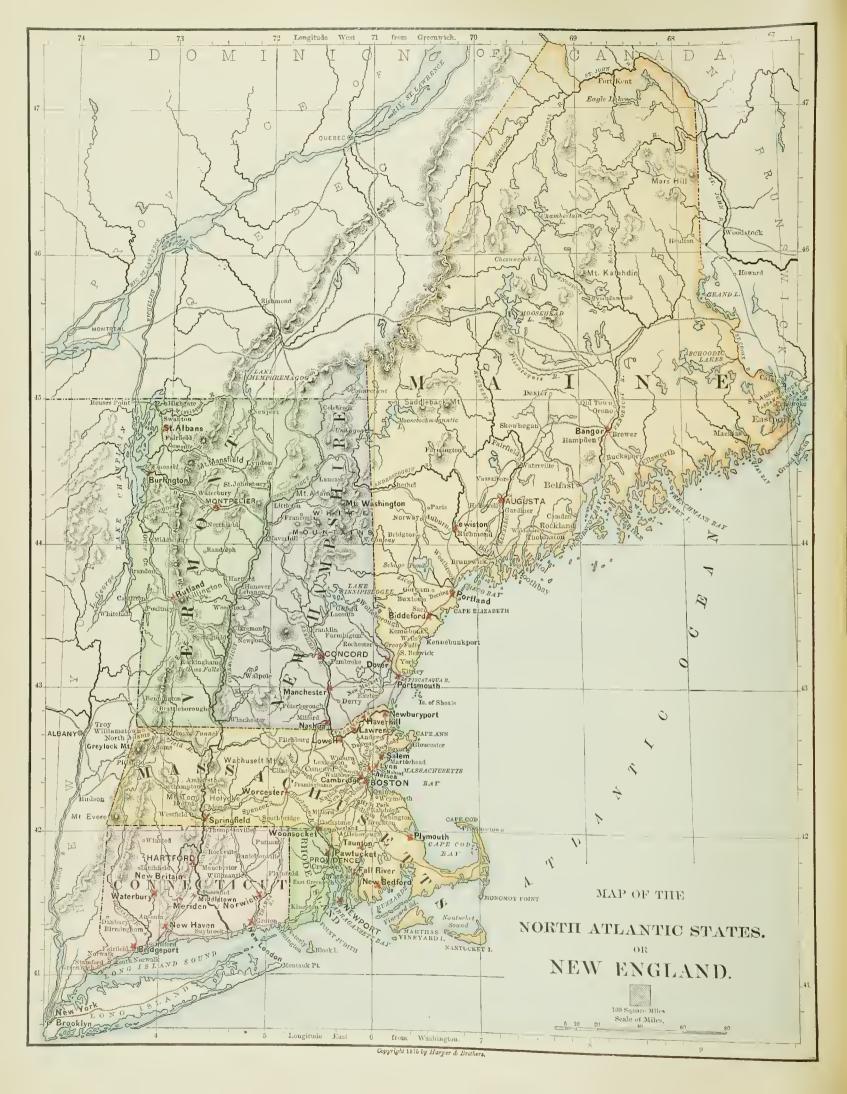
The President and the Vice-President are chosen by electors. The people of each state choose as many of these electors as there are members of Congress from that state. The President and the Vice-President hold office for four years. The President is commander-in-chief of the Army and the Navy. By and with the advice and consent of the Senate he appoints the judges of the Supreme Court and certain other civil and military officers, concludes peace, and makes treaties with other nations.

- 7. The Supreme Court, or judicial department, consists of a Chief-Justice and eight Associate Judges.
- 8. The complete statement of the plan or arrangement of the government is called the constitution.
- 9. Each state has a complete political organization or constitution, similar in most respects to that of the United States. It has a Governor elected directly by the people, a Legislature in two departments, and a Supreme Court.

Neither the General Government nor any state government can make a law which is contrary to the Constitution of the United States. An organized territory has a government similar to that of a state, except that the governor and the judges are appointed by the President of the United States. .

Questions (I.)-1. What is the form of the government of the United States? Of the several state governments? How does the United States compare with other republics?-2. How many and what departments has it?-3. Of what does the legislative department consist? What are they called?—4. Of what does the Senate consist? -5. How are the members of the House of Representatives chosen?-6. Who is the chief executive officer?-7. Of what does the Supreme Court consist?-8. What is the Constitution of the United States?-9. What is said of the state governments?

(II.)-1. What is a republican government? What is a state? What is a territory?-3. How are laws made? When is a bill said to be vetoed? How may it afterwards become a law?-4. How are the senators chosen? For how long a time? What is their present number? Who is President of the Senate?-5. In what particular is the election of members of the House peculiar? How long do they hold office? How many members are there at the present time? What is the basis of representation? Who is the Speaker? What is said of territorial delegates?-6. By whom are the President and the Vice-President of the United States chosen? By whom are the electors chosen? How many are there? How long do the President and the Vice-President hold office? Who is the head of the Army and Navy? What other powers and duties has he?-9. What laws can not be made? What can you say of territorial governments?



XLI.

QUESTIONS ON THE MAP.

General.—Name the North Atlantic States. Which is the largest? Which is the smallest? Which has no sea-coast? Which has the most broken coast? What mountain system covers a large part of New England? (See Physical Map of U. S., page 25.) Which state has no mountains? In what general direction do the rivers flow? Which is the largest river? What states does it separate? What states does it cross? Which state has the greatest number of lakes?

Maine.—What river forms part of the northern boundary of Maine? Of the eastern? Of what lakes is it the outlet? Name four other principal rivers. From what lake does the Kennebec flow? What bays on the southern coast? What cape? What island? What city on Casco Bay? On the Saco River? On the Androscoggin? On the Kennebec? On the Penobscot? Which is the capital?

New Hampshire. — What mountains in the northern part of New Hampshire? What celebrated peak? What lake near the centre of. the state? Which is the principal river in the state? In what state is the mouth of the Merrimac? What three cities in New Hampshire are on the Merrimac? Which is the capital? What sea-port in the southeast? At the mouth of what river? What city near the Piscataqua?

Vermont.—What parallel forms the northern boundary of Vermont? What lakes does it cross? Which of these forms part of the western boundary? In what direction do its waters flow? Through what branch of the St. Lawrence? What mountains in this state? Into what other states do they extend? Name the two highest peaks in Vermont. What town is the capital? What city on Lake Champlain? What town north of Burlington? What town southwest of Montpelier?

Massachusetts.—What two large islands belong to the state? What bay east? What two bays southeast? What three capes on the coast? What peak in the southwest? In the northwest? What two near Connecticut River? What river enters the state from New Hampshire? What cities on the Merrimac? Which of these is a sea-port? What city is the capital? What city northwest of Boston? What two cities northeast? What town on Cape Cod Bay? What city on Buzzards Bay? What city northwest of New Bedford? What city on the Connecticut? Midway between Springfield and Boston?

Rhode Island.—Name the two capitals of Rhode Island. On what island is Newport? (Rhode.) On what bay? What two towns north of Providence? What cape on the coast?

Connecticut.-What water south of Connecticut? What three rivers enter it from this state? What city is the capital? What two cities on the Thames? What two on or near Long Island Sound? What city northwest of New Haven? What three cities near the centre of the state?

Voyages and Travels.—What cities, capes, rivers, and islands would you pass in a coasting voyage from Bridgeport to Providence? From Providence to Boston? Boston to the St. Croix River? Through what cities by railroad from Bridgeport to Boston by way of Springfield? By way of Providence? Boston to Bangor? Boston to St. Albans by way of Nashua?

XLII.

REVIEW EXERCISES.

States.—How bounded? What is the capital? The largest city?

States.	Area in Sq. Miles.	Population in 1890.	States.	Area in Sq. Miles.	Population in 1890.
Maine	33,040	661,086	Massachusetts .	8,315	2,238,943
New Hampshire	9,305	376,530	Rhode Island	1,250	345,506
Vermont	9,565	332,422	Connecticut	4,990	746,258

Cities and Towns.—In what part of the state? How situated? AUGUSTA? Portland? Lewiston? Bangor? Biddeford? CONCORD? Manchester? Nashua? Dover? Portsmouth? Montpelier? Rutland? Burlington? St. Albans?

Boston? Lowell? Worcester? Cambridge? Fall River? Law-PROVIDENCE? New Haven? Bridgeport? Waterbury?

PROVIDENCE? New Haven? Bridgeport? Norwich? Waterbury?

Islands. -- Where situated?

Nantucket? Marthas Vineyard? Mount Desert?

Capes.—From what coast does it project?

Elizabeth? Ann? Cod? Monomoy? Judith?

Mountains.—Where are they?

Green? White? Mount Washington? Mount Mansfield? Mount Everett? Mount Tom? Mount Holyoke?

Bays, etc.— Where is it?

Passamaquoddy? Massachusetts? Cape Cod? Buzzards? Narragansett? Long Island Sound? Penobscot? Casco?

Rivers .- Where does it rise? In what direction does it flow? Through what states? Into what body of water?

St. John? St. Croix? Penobscot? Kennebec? Androscoggin? Merrimac? Connecticut? Thames? Housatonic?

Lakes.—Where situated? What outlet?

Moosehead? Winnipiseogee? Champlain? Grand?

NORTH ATLANTIC STATES.

XLIII.

NORTH ATLANTIC STATES, or NEW ENGLAND: DESCRIPTION.

1. Position and area.—The North Atlantic States extend from the Atlantic Ocean to Lake Champlain and the valley of the Hudson. Their area is about two fifths of that of California.

Maine is nearly as large as the five other states taken together.

2. Surface. - The surface is generally rough, being

broken by the mountains and numerous hills of this part of the Eastern Highland.

There are two principal ridges forming the sides of the long valley of the Connecticut River. The Green Mountains, near the western border, are the only continuous range. The irregular eastern ridge contains the White Mountains, the highest in New England.

The Atlantic shores are low in the south, and bold and rugged in the east. They furnish many good harbors.

3. Lakes and rivers.—The lakes and rivers are very numerous. Some of the lakes are celebrated for their

beauty. The frequent rapids and falls render the rivers unnavigable beyond a short distance, but furnish the extensive water-power which has made New England one of the greatest manufacturing districts in the United States.

4. Climate and soil.—The winters are long and severe; the summers are short, but hot.

The soil is stony, and not very fertile, except in the valleys.

5. Agriculture.—The agricultural products are not sufficient to supply the wants of the population.

The greater part of the breadstuffs and provisions used by the people of this section is brought from the Great Central Plain. Large quantities of live stock and wool are produced.

6. Occupations. - Manufactures and commerce are the leading pursuits.

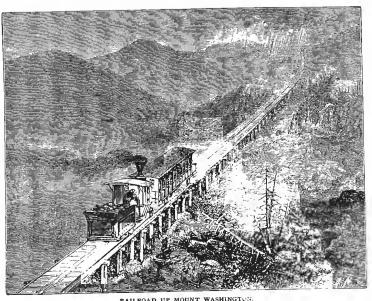
The manufactures comprise fabrics of cotton, wool, leather, metal, and wood, together with machinery, tools, and other articles in great variety.

The fire-arms, cutlery, sewing-machines, and boots and shoes of New England find a market in a large part of the civilized world. The forests of hemlock and pine, especially in the southeast of Maine, furnish valuable lumber.

7. Commerce.—The many excellent harbors, the comparative nearness to Europe, and the abundance of shiptimber have contributed to establish an extensive foreign commerce.

The domestic commerce consists in the exchange of lumber, marble, granite, ice, and manufactured articles for coal, breadstuffs, provisions, and cotton, iron, wool, and other raw materials. For this purpose Southern New England possesses more coasting vessels and more miles of railroad than any other equal area in the United States.

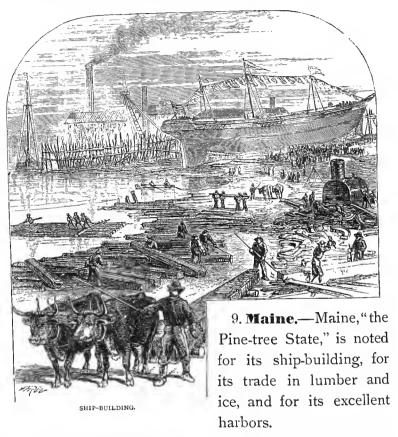
8. People.—The people of New England are chiefly of



RAILROAD UP MOUNT WASHINGTON

English descent. They are distinguished for industry and intelligence, and for the general diffusion of education.

The numerous colleges, high-schools, normal and common schools are unsurpassed in excellence by any in the Union. Massachusetts, Connecticut, and Rhode Island are the most densely peopled portion of the United States.



It has more good harbors than all the coast from the Chesapeake Bay to the Rio Grande.

Portland, the largest city, is at the termination of the Grand Trunk Railway of Canada, and is noted for its excellent harbor and its extensive commerce. It is the principal eastern gateway to the St. Lawrence Valley in the winter. Lewiston is largely engaged in manufacturing. Bangor is a great lumber depot. Augusta is the capital.

10. New Hampshire.—New Hampshire, "the Granite State," is remarkable for the beauty of its lakes and for the grand scenery of its mountains.

These mountains and lakes are much visited by tourists in summer. Mount Washington, the highest peak of the White Mountains, is 6288 feet high; the view from its summit is more extensive than any other east of the Mississippi. Of the lakes, Winnipiseogee, near the centre of the state, is the most beautiful.

Concord, the capital, is famous for its manufacture of coaches and wagons. Manchester, the largest city, and Nashua are noted for the manufacture of cotton and woollen goods.

The Merrimac River is said to be more extensively used for manufacturing purposes than any other river in the world.

11. **Vermont.**—Vermont, "the Green Mountain State," is chiefly a grazing country. It is also noted for its rich quarries of marble, soapstone, and slate.

Burlington, on Lake Champlain, is a great lumber market. Rutland has marble quarries. Montpelier is the capital.

12. Massachusetts.—Massachusetts, "the Bay State," is one of the first in the Union in the value of its manufactures; it is also noted for its extensive fisheries.

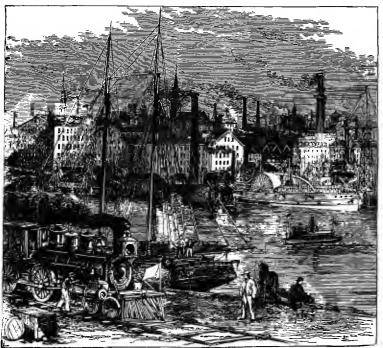
Its area is less than one thirtieth of that of Texas. The population of the two states is nearly equal.

Boston, the capital, situated at the head of Massachusetts Bay, is the largest city in New England. In foreign commerce it ranks next after New York. It is the centre of a railway system which includes the Boston and Albany Railroad and many other important lines.

In the suburbs are many beautiful towns, large and small, connected with the city by railroads: such towns may be called *residential towns*, as they contain the homes of many thousands of the mercantile population of the city.

It has sometimes been called the "American Athens," on account of the excellence of its literary institutions.

Lowell, Lawrence, and Fall River, famous for cotton manufactures; Worcester, a great railroad and manufacturing centre; Cambridge, the seat of Harvard University, the oldest and richest in America; Lynn, famous for its manufacture of boots and shoes; New Bedford, for cotton goods, and as the first sea-port in the world in the extent of its whale fisheries; and Springfield, containing a United States arsenal, are among its chief cities.



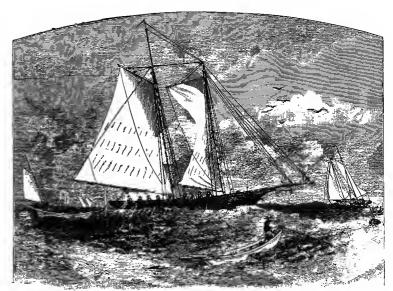
A MANUFACTURING TOWN.

Plymouth is celebrated as the landing-place of the Pilgrims, who formed a settlement there in 1620.

Lexington and Concord are famous for the opening engagements of the War of the Revolution, April 19, 1775.

13. **Rhode Island.**—Rhode Island, the smallest state in the Union, is extensively engaged in the manufacture of cotton, wool, iron, and jewelry.

This state contains a limited supply of anthracite coal.



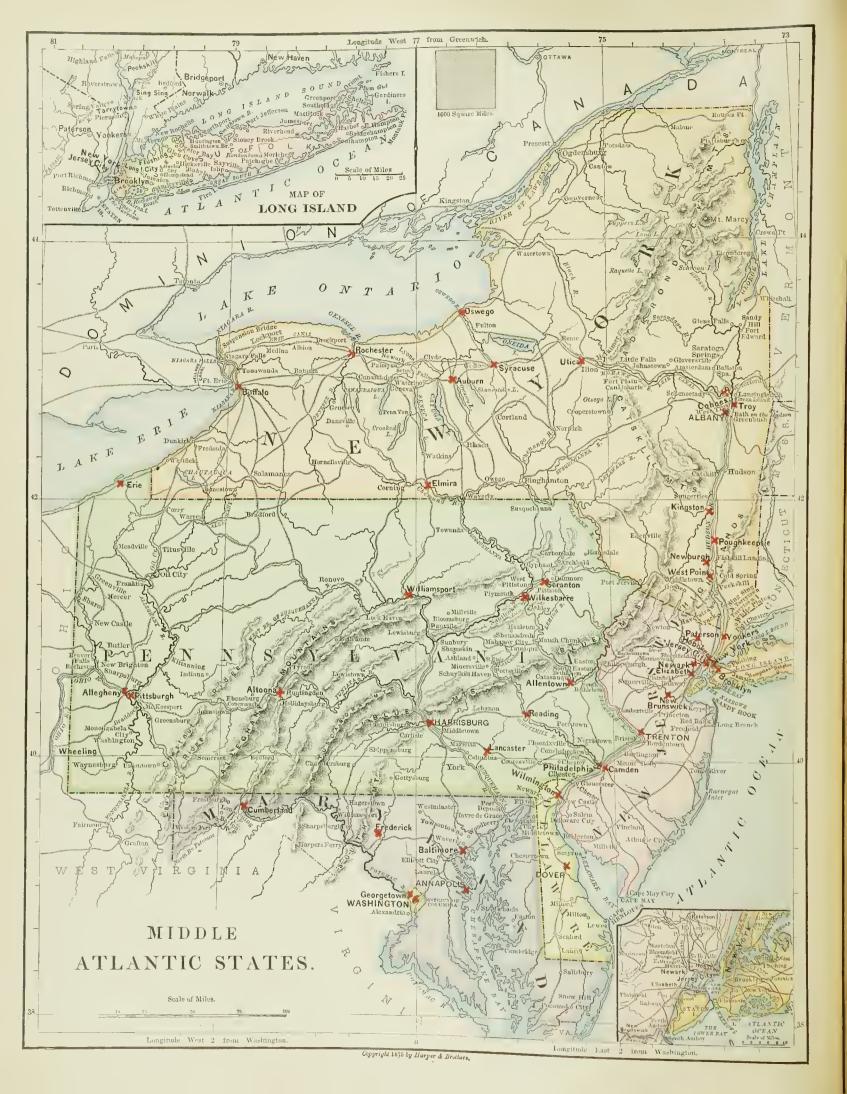
FISHING-SCHOONERS

Providence, the second city in New England, is one of the capitals. Newport, the other capital, is famous as a summer resort. Pawtucket and Woonsocket are important manufacturing towns.

14. **Connecticut.**—Connecticut is noted for a greater variety of manufactures than any other state, and for its extensive coasting trade. New Haven, the seat of Yale College, is the largest city. Hartford, at the head of navigation on the Connecticut, is the capital. Bridgeport, Norwich, and Waterbury are large cities.

Questions (I.)-1. What is the position of the North Atlantic States? How do New England and California compare in size?-2. What is the character of the surface? Why?-3. What is said of the number of the lakes and rivers? For what are some of the lakes celebrated? What is the effect of the falls and rapids of the rivers? Why are they valuable?—4. What is the character of the climate? Of the soil?— 5. What is said of the amount of agricultural products?-6. What are the leading pursuits?-7. What is said of the foreign commerce? Of domestic commerce? Of the number of coasting vessels? Of railroads?—8. Of what descent are the people of New England? For what are they distinguished?—9. For what is Maine noted? Portland? Of what is it the principal gateway? What is said of Lewiston? Bangor? Augusta?-10. New Hampshire? Concord? Manchester and Nashua?-11. Vermont? Rutland? Burlington? Montpelier?—12. Massachusetts? Which is the largest city in New England? What is its rank in foreign commerce? Of what is it the centre? Name one of the most important lines of railroad. Name some of the other chief cities. For what is Lowell noted? Lawrence? Fall River? Worcester? Cambridge? Lynn? New Bedford? Springfield?-13. Rhode Island? Providence? Newport? Pawtucket and Woonsocket?—14. Connecticut? New Haven? Hartford?

(II.)—1. What is the relative size of Maine?—2. What form the sides of the Connecticut Valley? Which is the only continuous range? What is said of the eastern ridge? What is the character of the surface near the Atlantic?—5. Where are the breadstuffs and provisions obtained? Name the chief grazing products.—6. Name some of the principal manufactures of New England. The forest product.—8. What is said of the colleges and schools? What is said of the population of the three smaller states?—9. What is said of the harbors of Maine?—10. What is said of the mountains and lakes? Of Mount Washington? Of Lake Winnipiseogee? Of the Merrimac River?—12. How does Massachusetts compare with Texas in area and population? What is said of the suburbs of Boston? What may these be called? What is Boston sometimes called? For what is Plymouth noted? Lexington and Concord?—13. What mineral in Rhode Island?



XLIV.

QUESTIONS ON THE MAP.

General.—Name the states of this group. Which two are the largest? Which is the smallest? What mountain system covers a large part of the group? Which state has the most mountains? Which has none? Which state has many lakes?

New York.—What two large islands belong to this state? What strait between them? What mountains in the north? The southeast? The east? What river flows into New York Bay? Its most important branch? What two rivers partly separate New York from Canada? What two lakes? Which way does Niagara River flow? What falls in that river? What lake in the southwestern part of the state? Name four lakes in the central part. What river drains them? What river west of the Oswego? What river flows into Delaware Bay? Chesapeake Bay? Ohio River? What lake forms a part of the northeastern boundary? What lake south of Lake Champlain? What city at the mouth of the Hudson? On Long Island? Name the chief cities on the Hudson. Which is the capital? What city at the mouth of the Oswego? The Mohawk? On the Genesee? Lake Erie? Near the Pennsylvania line? What two cities between Elmira and Oswego? What city east of Syracuse? What canal extends from Albany to Buffalo?

New Jersey.—What cape at the southern point of New Jersey? At the northeast point? What mountains in the northwest? What city is the capital? On what river? What city on the Delaware opposite Philadelphia? What six cities in the northeast?

Pennsylvania.—What parallel on the north? What river forms the eastern boundary? Name its principal branches. Name the chief mountain ranges of the state. What river crosses the state? Name its chief branches. What river in the western part? What two rivers form the Ohio? What city on the Delaware? On the Schuylkill? On the Lehigh? What two on the Susquehanna? What one on its west branch? Which is the capital? What city near Wilkesbarre? Between Harrisburg and Philadelphia? What two cities at the head of the Ohio? What one on Lake Erie? Between Pittsburgh and Harrisburg?

Delaware.—What river flows into Delaware Bay? What cape opposite Cape May? What city in the northern part of the state? What city is the capital?

Maryland.—What river separates Maryland from Virginia? What federal district on that river? What mountains in the state? In what part? What great bay divides the state into two parts? What two cities on or near the bay? Which is the capital? What city west of Baltimore? Near the western border?

District of Columbia.—What large city in the District of Columbia? What is Washington? What suburb has it?

Voyages and Travels.—In sailing from Troy to Brooklyn, what towns would you pass? What cities, capes, bays, etc., from Jersey City to Philadelphia? Philadelphia to Baltimore? What by railroad from New York to Washington by way of Trenton? Philadelphia to Erie? Philadelphia to Pittsburgh? Pittsburgh to Annapolis?

XLV.

REVIEW EXERCISES.

States.—How bounded? What is the capital? The largest city?

States.	Area in Sq. Miles.	Population in 1890.	States.	Area in Sq. Miles.	Population in 1890.
New York New Jersey		- , ,	Delaware Maryland		,
Pennsylvania		, ,	Dist. of Columbia.		230,392

Cities and Towns.—In what part of the state? How situated?

ALBANY? New York? Brooklyn? Buffalo? Rochester? Troy? Syracuse? Utica? Auburn? Oswego? Islmira?

TRENTON' Newark? Jersey City? Paterson? Camden? Hoboken? Elizabeth?

HARRISBURG? Philadelphia? Pittsburgh? Allegheny? Scranton? Reading? Erie? Lancaster?

DOVER? Wilmington?

Annapolis? Baltimore? Cumberland? Frederick?

WASHINGTON? Georgetown?

Islands. - Where situated?

Long? Staten?

Capes.—From what coast does it project?

Sandy Hook? May? Henlopen?

Mountains.— Where are they?

Adirondack? Catskill? Highlands? Blue? Alleghany? Tuscarora? South?

Bays.—Where is it?

New York? Delaware? Chesapeake? Long Island Sound?

Rivers.—Where does it rise? In what direction does it flow? Through what states? Into what body of water?

Hudson? Mohawk? Delaware? Schuylkill? Susquehanna? Alleghany? Potomac? Genesee? Monongahela? Oswego?

Lakes.—Where situated? What outlet?

George? Oneida? Cayuga? Seneoa? Canandaigua? Chautauqua?

MIDDLE ATLANTIC STATES.

XLVI.

MIDDLE ATLANTIC STATES: DESCRIPTION.

- 1. Area.—The area of the Middle Atlantic States is more than twice that of New England.
- 2. Surface.—The greater part of this group, being situated within the mountain region of the Eastern Highland, has a rough surface. The principal mountain ranges are the Adirondack and the Catskill in New York, and the Blue and the Alleghany in Pennsylvania.
- The mountains lie in the great forest belt; they are covered with pine, spruce, hemlock, and other evergreens in the north, and with deciduous trees in the south. The only lowlands are a narrow belt on the Great Lakes, and another on the Atlantic, connected by the valleys of the Hudson and the Mohawk.
- 3. Climate.—The winters are long and severe in the Adirondack region, but milder in the south; the summers are hot.
- 4. **Agriculture.**—Potatoes and all the grains except rice are produced in large quantities, but the population is so large, and so many are engaged in mining, manu-

facturing, and commerce, that all of these states except Maryland buy a large part of their breadstuffs.

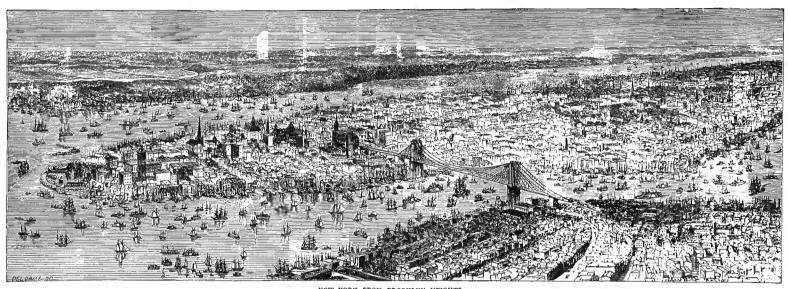
- 5. Minerals.—Iron is abundant in all the states of this group except Delaware, coal in Pennsylvania and Maryland, zinc in New Jersey and Pennsylvania, salt in New York, and petroleum in Pennsylvania.
- 6. Manufactures.—In the value of its manufactured articles this group of states ranks first in the Union. The falls of the numerous rivers which drain the highland, and the abundant coal, give unusual advantages to this form of industry.

of the United States, excluding Texas. The common-school system is one of the best in the United States.

The cataract of Niagara, in the Niagara River, is the grandest waterfall in the world. The water from the broad basin of four of the Great Lakes here falls over a precipice 164 feet high, producing a scene of wonderful sublimity.

The City of New York, sometimes called the Metropolitan City, is the richest and most populous city in America.

It is noted for its extensive commerce, the number of its magnificent hotels, banks, churches, and private dwellings, and for its Central Park. In 1890 only two cities of Europe-London and Paris-exceeded it in population.



YORK FROM BROOKLYN HEIGHTS

7. Commerce.—The Middle Atlantic States are the principal commercial section of the Union.

The chief routes of the vast domestic commerce of this group of states are Hudson River, the Erie Canal, the New York, Lake Erie, and Western, and the New York Central and Hudson River Railroads, in New York; Chesapeake and Delaware Bays, and the Pennsylvania Railroad in Pennsylvania; the Baltimore and Ohio Railroad in Maryland; and the New Jersey Central Railroad in New Jersey.

Into these few channels are gathered the extensive coasting trade and the immense system of railway and river lines of the West and South.

The three great bays and the excellent harbors of the Atlantic coast, the navigable rivers, and the easy access to Europe and to the rich Valley of the Mississippi and the Great Lakes, give remarkable advantages both for foreign and domestic commerce. The Hudson is navigable to Troy, the Delaware to Trenton, and the Potomac to Georgetown.

8. New York. - New York, "the Empire State," is the first in the Union in population, wealth, and commerce.

Its population in 1890 was more than a million greater than that of New England, and equal to that of the whole western half

Brooklyn, the fourth city of the United States, is closely connected with New York by the largest suspension bridge in the world and by many short ferries. The two really constitute one great city.

There are also many other manufacturing and residential towns connected with New York by rivers and railroads. So numerous are these towns that the total number of inhabitants within a circle of thirty miles' radius around New York is not less than 3,000,000; the population of the city itself being over 1,500,000.

Among other important places are Buffalo, on Lake Erie, the third city of the state, and Albany, the capital, are important depots of grains and other produce; Buffalo also supplies a large lake trade with anthracite coal from Pennsylvania. Rochester, the fourth city, has fine water-power. Syracuse is noted for its salt-works; Troy, Utica, Auburn, Cohoes, and Oswego for water-power and manufactures. The village of West Point, beautifully situated on the Hudson, is the seat of the United States Military Academy.

9. New Jersey.—New Jersey, lying between the great cities of New York and Philadelphia, is largely engaged in market-gardening and fruit-raising.

Newark, on the Passaic River; Jersey City, a suburb of

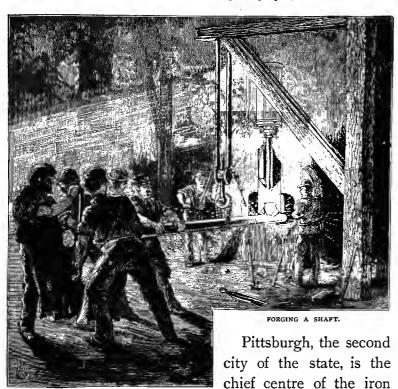
New York; Paterson, at the Passaic Falls; and Trenton, the capital, are extensively engaged in manufacturing.

10. **Pennsylvania.**—Pennsylvania, "the Keystone State," is remarkable as the chief mining state in the Union. It produces nearly all of the petroleum, about two thirds of the coal, and much of the iron, mined in the United States.

The coal of this state, with that of Maryland, supplies domestic fuel and the steam-power of vessels, locomotives, and factories for a large part of the United States. The abundance of fuel and iron shapes the industries of its leading cities.

Philadelphia is the second city of the United States in manufactures, third in population, and the fourth in foreign commerce.

It also has an extensive domestic commerce, and is the greatest coal depot in America. It is noted for its Fairmount Park, its well-supplied markets, and its abundance of cheap and comfortable dwellings: it is sometimes called the "City of Homes." Its most famous public building is the State House, where the Declaration of Independence was adopted, July 4, 1776.



interest, and is one of the greatest petroleum markets in the world. It has a large trade with the Mississippi Valley in bituminous coal, glass, iron, and machinery. Allegheny is the third city in the state.

Scranton, Pottsville, and Wilkesbarre are large "coal" towns in the anthracite region, which has numerous railways and canals for the transportation of this product. Erie is a great lake port. Harrisburg is the capital.

11. **Delaware.**—Delaware is the smallest state in the Union except Rhode Island, and is noted for its fruit trade. Wilmington, the chief city, is noted for the construction



COAL - MINE

of iron ships, and for its manufacture of gunpowder and a great variety of other articles. Dover is the capital.

12. **Maryland.**—Maryland is noted for its mild climate, and for its production of tobacco, coal, and iron.

The peninsula between Chesapeake Bay and the Atlantic is the great peach-growing district of the United States.

Baltimore is the fifth city of the United States in foreign commerce and the seventh in population.

It has an extensive trade in tobacco, canned fruit, and oysters. It is the terminus of a trunk railway, the Baltimore and Ohio, which connects it with St. Louis, and with Chicago and other lake-ports.

Annapolis, the capital, is the seat of the Naval School of the United States.

13. **District of Columbia.**—The District of Columbia, situated on the Potomac, has an area of seventy square miles. It contains Washington, the capital of the United States.

Questions (I.)—1. What is the area of this group?—2. What is the character of its surface? Why? Name the principal mountain ranges.-3. What is the character of its climate?-4. What are the agricultural products? What is said of the breadstuffs? - 5. What and where are the chief minerals? - 6. What is said of the manufactures? Of the natural advantages for manufacturing? - 7. What is said of the commerce? Name the principal routes. What is said of them?-8. For what is the State of New York remarkable? The City of New York? What is said of Brooklyn and the suspension bridge? For what is Buffalo noted? Albany? Rochester? West Point? What cities are noted for water-power and manufactures?-9. What are the chief occupations in New Jersey? What cities are engaged in manufacturing? Which is the largest city? The capital?-10. For what is Pennsylvania noted? What is said of its mineral products? For what is Philadelphia noted? For what is Pittsburgh noted? Which is the third city in the state? Which are the coaltowns? What city is the capital?—11. What is the comparative size of Delaware? For what is it noted? Wilmington? What city is the capital? - 12. For what is Maryland noted? What is said of the peninsula? Baltimore? Annapolis?-13. What is the area of the District of Columbia? What city does it contain?

(II.)—2. In what belt do the mountains lie? With what are they covered? Where are the lowlands?—7. What are the commercial advantages of this section? How far is the Hudson navigable? The Delaware? The Potomac?—8. What is said of the population? Of the common-school system? Of the Falls of Niagara? For what is New York City noted? What is said of its population? Of the manufacturing and residential towns?—10. Of the coal of Pennsylvania? What determines the industries of the leading cities? What is said of Philadelphia? For what is it noted? What is it sometimes called? What is its most famous public building?—11. What is said of the trade of Baltimore? Of what great railway is it the terminus?

OUESTIONS ON THE MAP.

General. -- How many states are represented upon this map? Into what two groups may they be divided? (See States flow? What is their general direction? Into what their general direction in the north? In the west? In the what states does the Blue Ridge extend? Which of these states have no mountains? What states are bounded by the Ohio River? The Mississippi? The Gulf of Mexico? page 29.) Into what do the rivers of the South Atlantic do the rivers of the South Central States flow? What is south? In what part of the South Atlantic States are the mountains? Of the South Central States? What states are land range? By the Unaka or Smoky Mountains? Through partly separated by the Alleghany range? By the Cumber-

ginia? What two capes at its mouth? What four rivers flow into that bay? What branch has the James? What river between the Blue Ridge and the Alleghany Mountains? Virginia.--What great bay-partly within the State of Vir-What What city on the Appomattox? What two cities near the mouth of the James? What city west of the Blue Ridge? What In what direction does it flow? Of what river is it a branch? two cities on the James? Which is the capital? river on the north? What city on the Potomac? What swamp in the southeastern part of the state?

North Carolina.--What cross-range connects the Iron are they separated from the ocean? (By narrow sand-bars are these sand-bars and islands? (They protect the navigation of the entire coast of North Carolina.) What rivers flow Mountains with the Blue Ridge? What peak in the Black Mountains? For what is it remarkable? (It is the highest point in the United States east of the Rocky Mountains.) and islands.) What capes on these islands? Near what city in Virginia do these sand-bars and islands begin? Near On Cape Fear River? What two cities in the southwest? What two sounds on the coast of North Carolina? How into these sounds? What river enters the ocean at Cape Fear? What city on Neuse River? On Yadkin River? what city in North Carolina do they end? Of what use What city is the capital?

Carolina? What two branches form it? On which of these South Carolina,—Which is the principal river of South is the capital? What two rivers form the Congaree? What river north of the Santee? What river south? What city on the coast? What town northwest of Columbia?

What city on the Ocmulgee? What river forms a part of the western boundary? What river east of the Georgia.--What river forms the eastern boundary of Georgia? What two cities on the Savannah? What large river south of the Savannah? What rivers form the Altamaha?

Chattahoochee? What city on the Chattahoochee? What is the capital? What city east of Atlanta?

the state? What lake north of it? What broad river in near its mouth? What town northeast of Jacksonville? the east? In what direction does it flow? What town Southeast? What river in the northwest? What branches town on one of them? What capes on the coast of Florida? Florida.—What small islands south of Florida? What What bays? What great swamp in the southern part of form it? What is the capital? What town in the northwest? On what bay?

What other cities West Virginia.—Which is the principal river of West Virginia? What river forms a part of the western boundary of this state? What city in the narrow northern part of the state? On what river? What is this narrow district on the Ohio? What city is the capital? sometimes called? (The Pan-handle.)

cinnati? What two towns at the mouth of the Licking? Kentucky.--Name the five chief branches of the Ohio River in Kentucky. Which has its mouth opposite Cin-What city is the capital? What city southeast of it? What large city on the Ohio?

see? Through what states does the Tennessee flow? The Cumberland? What city is the capital? What two Tennessee.—Which are the two chief rivers in Tennescities in East Tennessee? On what rivers? What city on the Mississippi? Northeast of Memphis? Southwest of Nashville?

town north of the Tennessee? Into what does the Mobile flow? Name its two branches. What city on Mobile Bay? What town on the Alabama? What branch has the Tombigbee? What two cities in the north central part of the Alabama,—Name the two chief rivers of Alabama, What state? Name the capital.

Of what river is the Yazoo a branch? The Tombigbee? What other branch of the Mississippi in this state? Into what does the Pearl River flow? What city on the Pearl? What two on the Mississippi? What city is the capital? Mississippi. — Name the chief rivers of Mississippi. What town east of Jackson?

Savannah to Chattanooga? From Petersburg to Nashville? steamer to Memphis? From Memphis to Wheeling? What cities would you pass through in a journey by rail from lanta to Vicksburg? From Vicksburg to Lynchburg by way of Chattanooga? From Cincinnati to Birmingham? From Savannah to Knoxville by way of Charleston? From Washington to Pensacola by way of Chattanooga? From would you pass near in a voyage from Washington to Fer-Washington to Atlanta by way of Wilmington? From At-Voyages and Travels.--What rivers, capes, and sea-ports nandina? From Fernandina to Mobile? From Mobile by

XLVIII.

REVIEW EXERCISES,

TheStates.—How bounded? What is the capital? largest city?

ATLANT	SOUTHERN DIVISION.	SATES:	ATLANTIC STATES: CENTRAL STATES SOUTHERN DIVISION.	NTRAL STATE SOUTHERN DIVISION.	ATES: SION.
States.	Area in Sq. Miles.	Area in Population 3q. Miles. in 1890.	States.	Area in Sq. Miles.	Area in Population Sq. Miles. in 1590.
Virginia	42,450	1,655,980	1,655,980 W. Virginia	24,780	762,794
N. Carolina. 52,250	52,250	1,617,947	1,617,947 Kentucky	40,400	1,858,635
S. Carolina	30,570	1,151,149	Tennessee	42,050	1,767,518
Georgia	59,475	1,837,353	1,837,353 Alabama	52,250	1,513,017
Florida	58,680	391,422	391,422 Mississippi .	46,810	1,289,600

Cities and Towns.—In what part of the state? How situated?

RICHMOND? Norfolk? Petersburg? Lynchburg? Alexandria? Portsmouth?

RALEIGH? Wilmington? Charlotte? Asheville? COLUMBIA? Charleston?

ATLANTA? Savannah? Augusta? Macon? Columbus? Athens? TALLAHASSEE? Key West? Jacksonville? Pensacola?

CHARLESTON? Wheeling? Parkersburg? Fernandina? St. Augustine?

FRANKFORT? Louisville? Covington? Newport? Lex-

NASHVILLE? Memphis? Chattanooga? Knoxville? Jackson? ington?

Montgomery? Mobile? Birmingham? Anniston? JACKSON? Vicksburg? Natchez?

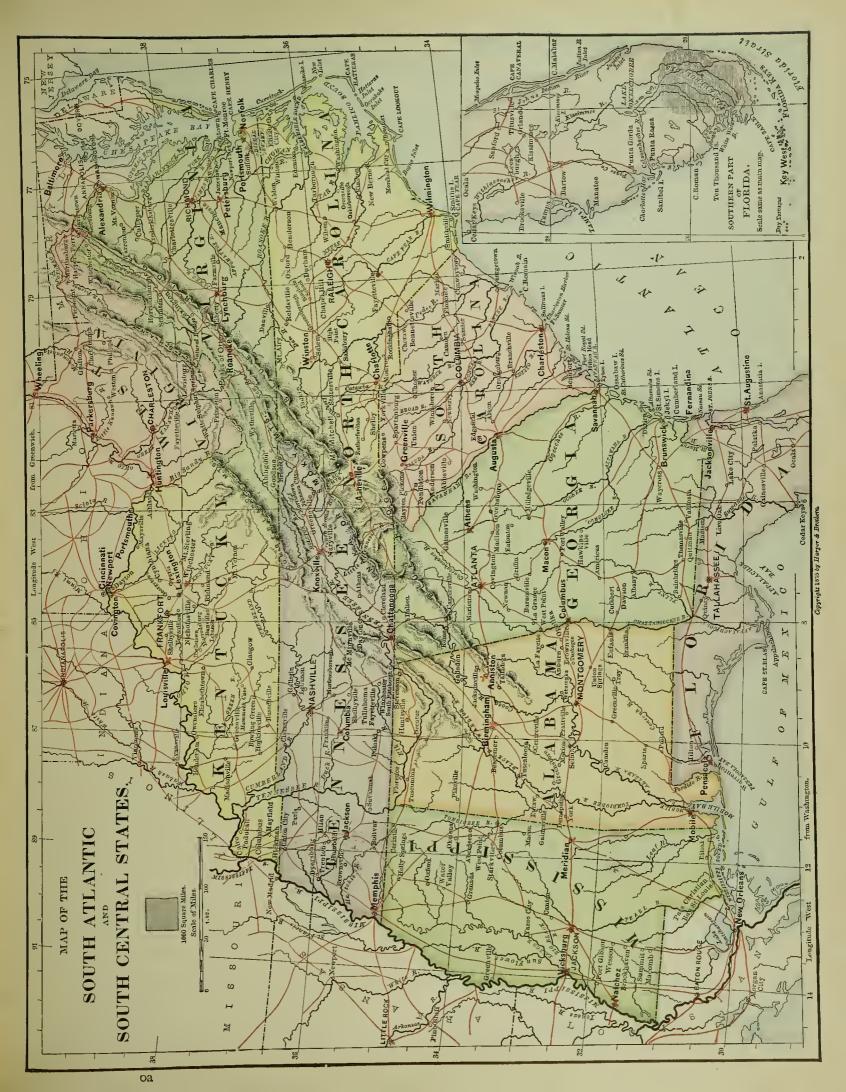
Fear! Hatteras? Lookout? Capes.—From what coast does it project? Henry? Sable? Charles? Canaveral?

Mountains. - Where are they?

Blue Ridge? Alleghany? Cumberland? Unaka? Black? Mount Mitchell? Peaks of Otter?

Chesapeake? Albemarle Sound? Pamlico Sound? Tampa? Appalachee? Mobile? Mississippi Sound? Bays, etc. -- Where is it?

mattox? Roanoke? Neuse? Cape Fear? Santee? Savannah? Altamaha? St. Johns? Appalachicola? Flint? Chattahoochee? Great Kanawha? Licking? Kentucky? Rivers.—Where does it rise? In what direction does it Potomac? Rappahannock? York? James? Appoflow? Through what states? Into what body of water? Tennessee? Yazoo? Pearl? Tombigbee? Alabama? Shenandoah? Cumberland?



ATLANTIC AND CENTRAL STATES:

SOUTHERN DIVISIONS.

XLIX.

ATLANTIC STATES: SOUTHERN DIVISION.

- 1. **Area.**—The area of the four northern states of this group is about equal to that of the eleven Atlantic States north of the Potomac. Georgia is the largest state east of the Mississippi.
- 2. **Surface.**—The surface consists of several belts of country parallel to the coast:

First. The most western belt contains the Blue Ridge and the Unaka or Smoky Mountains, with the high valleys between.

This elevated district is mostly covered with forests of deciduous trees—oak, hickory, chestnut, maple, etc. It has an abundance of water-power, coal, and iron, but is yet undeveloped.

Second. East of the mountain belt lies a broad strip of fertile country. It produces tobacco in the north and cotton in the south.

Third. Farther to the east is a low sandy belt, called the "Pine Barrens," covered with forests. It supplies lumber, tar, pitch, and turpentine.

It extends nearly to the Mississippi on the west, and may be traced towards the north through New Jersey and Long Island.

Fourth. The low, unhealthy coast region contains a chain of great swamps, extending from the Dismal Swamp of Virginia to the Everglades of Florida, and along the shores of the Gulf of Mexico to Texas. In some parts

RICE - FIELDS

of this belt rice is extensively cultivated. It also contains forests of live-oak, which is valuable for ship-building.

3. Climate.—The summers are long and hot. The winters are mild in the mountains and in the north; in the southern part there can hardly be said to be any winter.

The moist winds of the Atlantic and of the Gulf of Mexico give to Georgia and the Gulf States the largest rain-fall known in any part of the United States excepting Puget Sound and Alaska.

The production of cotton, the great staple of the South, and one of the chief exports of the United States, is dependent upon the frequent summer showers.

- 4. **Occupation and productions.**—Agriculture is the leading occupation. The principal products are wheat, corn, sweet potatoes, and tobacco in the north; rice and cotton in the south.
- 5. **Virginia.**—Virginia, "the Old Dominion," is the second state in the production of tobacco, and has a large trade in garden vegetables, Southern agricultural staples, and in oysters from the Chesapeake Bay.

The country between the Blue Ridge and the Alleghany Mountains is called the Great Valley of Virginia, and is one of the most fertile districts in the United States.

Richmond, at the falls of the James, is the capital and chief manufacturing and railroad centre. It is the largest city in this group of states, and has an extensive trade in iron manufactures and tobacco.

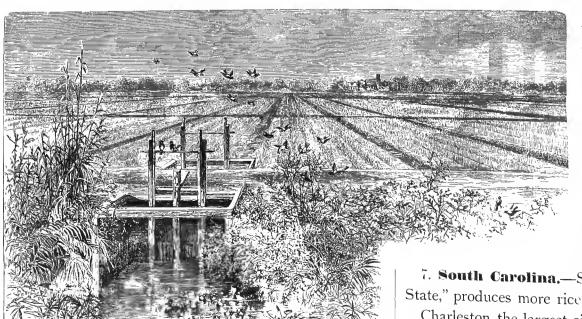
Norfolk, the second city of the state, and a leading cotton port, has the best harbor in the United States south of the Potomac.

6. North Carolina.—
North Carolina, "the Old North
State," produces a large amount
of tobacco and cotton.

Wilmington, the largest city, exports turpentine, tar, pitch, rosin, lumber, rice, and cotton. Raleigh is the capital.

7. **South Carolina.**—South Carolina, "the Palmetto State," produces more rice than any other state.

Charleston, the largest city, is an important cotton port. Columbia is the capital.



8. **Georgia.**—Georgia has a larger population and more extensive manufactures than any other sea-board state between Virginia and Texas. The manufactures are chiefly of iron and cotton, and are rapidly increasing.

Atlanta, the capital and largest city, is an important railroad centre. Savannah, the second city and chief port, has a large cotton trade. Columbus, on the Chattahoochee, has abundant water-power, and manufactures a large amount of cotton goods.

9. **Florida.**—Florida is noted for its mild climate and its orange-groves and other tropical vegetation.

The population is densest in the northeast, and within 100 miles of the northern boundary. The southern half of the state is a low morass.

St. Augustine is the oldest town in the United States. Key West, the largest city, is a wrecking station, and is largely engaged in sponge-fishing and in the manufacture of cigars. Jacksonville is a winter resort. Tallahassee is the capital.

Questions (I.)—1. What is the area of the four northern states of the South Atlantic group? Of Georgia?—2. Of what divisions does the surface consist? What constitutes the western belt? The second belt? What does it produce? What is the third belt? What does it supply? What is the fourth belt? What are the productions of this belt?—3. What is the character of the climate? What is said of the rainfall? Of the production of cotton?—4. What is the leading occupation? Name the chief productions.—5. For what is Virginia noted? Richmond? Norfolk?—6. North Carolina? Wilmington? Raleigh?—7. South Carolina? Charleston? Columbia?—8. Georgia? Atlanta? Savannah? Columbus?—9. Florida? What is said of St. Augustine? Pensacola? Key West? Tallahassee?

(II.)—2. What is said of the forests of the mountain belt? Of its water-power and minerals? What is the extent of the third belt?—5. Where and what is the Great Valley?—9. Where is most of the population of Florida? What is the character of the southern half of the state?

L.

THE CENTRAL STATES: SOUTHERN DIVISION.

1. **Surface.**—This group of states has a diversified surface, but the greater part is in the low Central Plain.

West Virginia lies in the Eastern Highland, and Mississippi in the Great Plain. Kentucky, Tennessee, and Alabama have large highland districts.

- 2. **Climate.**—The climate of the highlands is mild and delightful; the lowlands have long and hot summers.
 - 3. Soil.—The greater part of the plain is very fertile.
- 4. **Occupations.**—Agriculture is the chief occupation. The leading staples are cotton, corn, tobacco, and hemp.

All but West Virginia produce cotton. The mountains and numerous rivers of the Eastern Highland give West Virginia, Kentucky, and Tennessee unlimited water-power, coal, and iron: these are as yet but little used.

5. Commerce.—The Cumberland, Tennessee, Alabama,

and other large navigable rivers radiate from the highland and fall into the Ohio, the Mississippi, and the Gulf. These rivers and the numerous railways furnish excellent commercial facilities.

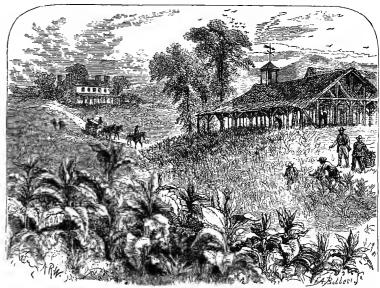
Louisville, Knoxville, Chattanooga, Nashville, Memphis, and Mobile are the leading railroad centres.

6. **West Virginia.**—West Virginia has a mountainous surface. It is rich in bituminous coal, iron, salt, and petroleum.

Wheeling is the largest city. Huntington and Parkersburg are important cities. Charleston is the capital.

7. Kentucky.—Kentucky is one of the most populous states south of the line of the Ohio and Potomac rivers.

It surpasses every other state in the production of tobacco, and produces half of the hemp raised in the United States.



TOBACCO PLANTATION.

Louisville, on the Ohio, is, after New Orleans, the largest city south of the Ohio and the Potomac; it has a large trade in flour, pork, hemp, and tobacco. Covington and Newport are opposite Cincinnati. Frankfort is the capital.

8. **Tennessee.**—Tennessee has three physical divisions, known as East, Middle, and West Tennessee.

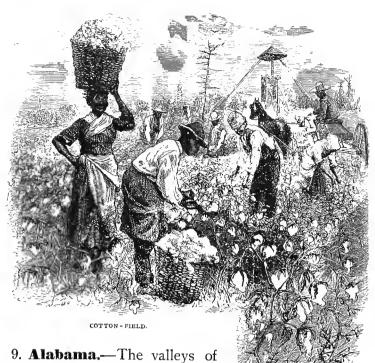
East Tennessee is a mountainous country, and is remarkably rich in coal, iron, timber, and water-power.

Knoxville, on the Holston, and Chattanooga, beautifully situated on the Tennessee, are the chief depots of this important region.

Middle Tennessee, the most populous division, is famous for its production of corn, tobacco, and live stock. Nashville, its depot, is the capital and largest city in the state.

West Tennessee is the lowest and warmest part of the state. Cotton is the chief staple.

Memphis is the largest city on the lower Mississippi River except New Orleans.



the Alabama, the Tombigbee, and the Tennessee include most of the state. Cotton

and iron are the chief products.

Montgomery, the capital, is an important depot for cotton. Mobile, a cotton port, is the largest city. Birmingham and Anniston are centres of the iron region.

10. **Mississippi.**—Mississippi is noted as the leading state in the production of cotton.

Vicksburg is the most important city. Jackson is the capital.

Although the richest in the most important export of the United States, this is the only Gulf State with no sea-port of its own. It has no large city.

Questions (I.)—1. What is the character of the surface of this division? Where does the greater part lie?—2. What is the character of the climate?—3. Of the soil?—4. What is the chief occupation? Name the leading staples.—5. What is said of the chief rivers of this group? What commercial facilities has this section? Name the leading railroad centres.—6. What kind of a surface has West Virginia? In what minerals is it rich? What is the largest city? The capital?—7. For what is Kentucky noted? Louisville? Covington? Frankfort?—8. How many physical divisions has Tennessee? Name them. For what is East Tennessee noted? Knoxville and Chattanooga? Middle Tennessee? Nashville? West Tennessee? What is the principal staple? What is said of Memphis?—9. What river valleys include most of the State of Alabama? What are the chief products? Name the principal cotton depots. For what is Mobile noted? Birmingham?—10. For what is Mississippi noted? Name the most important city. The capital.

(II.)—1. Which of these states has no lowland? Which no highland? Which have large highland districts?—4. Which of these states does not produce cotton? Which are rich in water-power, coal, and iron?—7. How does Kentucky rank in the production of tobacco? Of hemp?—10. Has Mississippi any sea-ports? Any large cities?

LI.

QUESTIONS ON THE MAP.

General.—Name the states of this group. Which border on the Ohio River? On the Mississippi? On Lake Superior? On Lake Michigan? On Lake Erie? What water connects Lake Superior with Lake Huron? Lake Huron with Lake Michigan? What lake between Lake Huron and Lake Erie? What rivers connect these lakes? Which of these states has no river belonging to the Mississippi system?

Ohio.—Name the three chief branches of the Ohio River in this state. What river in the northwest? What city on the Maumee? What two cities on Lake Erie? On the Ohio? On the Miami? What city on the Muskingum? West of Columbus? What three southeast of Cleveland? What two southwest of Toledo? What city is the capital?

Indiana.—Which is the chief river of Indiana? What is the chief branch of the Wabash? What city on the west fork of the White? What two cities on the Wabash? On the Ohio? What city on the Maumee? On the St. Joseph? In the east? What is the capital?

Illinois.—Name the three chief branches of the Mississippi in this state. What is the capital? What city on Lake Michigan? What two cities southwest? On Mississippi River? What city on Rock River? On Illinois River? Northwest of Peoria? Southeast of Peoria?

Wisconsin.—Which is the chief branch of the Mississippi in this state? What lake in the east? What river is its outlet? Into what bay does it flow? What two cities on Lake Winnebago? Three on Lake Michigan? What cities in the west? What city is the capital?

Michigan.—Of what does Michigan chiefly consist? (Of two great peninsulas.) What large island in Lake Superior belongs to this state? Which is the chief river of South Michigan? What river north of Grand River? What three cities on Grand River? Which of these is the capital? What city on Muskegon River? What bay on the eastern shore? What river flows into it? What two cities on Saginaw River? What city on Detroit River?

Voyages and Travels.—Through what waters would you pass, and

near what cities, in a coasting voyage from Chicago to the head of Lake Superior? Chicago to Cleveland? What cities would you pass between Cincinnati and the mouth of the Ohio? By rail from Chicago to Oshkosh? Chicago to St. Louis? Chicago to Evansville? Chicago to Louisville by way of Logansport? Chicago to Cleveland? Cleveland to Cincinnati? Cleveland to Grand Rapids by way of Detroit?

LII.

REVIEW EXERCISES.

States .- How bounded? What is the capital? The largest city?

States.	Area in Sq. Miles.	Population in 1890.	States.	Area in Sq. Miles.	Population in 1890.
Ohio		3,672,316 2,192,404 3,826,351	Wisconsin Michigan		1,686,880 2,093,889

Cities and Towns.—In what part of the state? How situated?

Columbus? Cincinnati? Cleveland? Toledo? Dayton? Springfield? Zanesville? Akron? Sandusky?

INDIANAPOLIS? Evansville? Fort Wayne? Terre Haute? New Albany? Lafayette?

Springfield? Chicago? Peoria? Quincy? Bloomington? Rockford? Aurora?

Madison? Milwaukee? Racine? Oshkosh? La Crosse?

Lansing? Detroit? Grand Rapids? Bay City? Saginaw? Jackson? Muskegon?

Bays. - Where is it? Green? Saginaw?

Rivers.—Where does it rise? In what direction does it flow? Through what states? Into what body of water?

Scioto? Wabash? White? Illinois? Wisconsin? St. Marys? Fox? Grand? St. Clair? Detroit? Maumee? Saginaw?

Lakes .- Where situated ? What outlet ? Winnebago? St. Clair?



NORTHERN CENTRAL STATES.

LIII.

CENTRAL STATES: NORTHERN DIVISION.

- 1. This group lies wholly in the Great Central Plain.
- 2. Surface.—There are no mountains.

There is a hilly region in the southeast, towards the Ohio, and another and more rugged one towards Lake Superior.

The greater part of Illinois and the adjacent parts of Wisconsin and Indiana are level or rolling prairies. The rest of the vast plain, and the hilly regions, are covered with forests except where cleared for cultivation.

- 3. **Climate.**—The winters are severe, especially in the north: the summers are hot.
- 4. Minerals.— The hilly region near Lake Superior contains an abundance of iron-ore and the greatest de-



posit of pure or native copper in the world; that near the Ohio is rich in iron, and extensive deposits of coal. An important lead region covers the adjacent parts of Wisconsin and Illinois near the Mississippi. Michigan produces more salt(and copper) than any other state.

5. **Occupations.**—Agriculture and grazing are the leading pursuits. Of wheat, corn, wool, and live stock the quantity produced is unsurpassed by that of any equal area on the globe. Manufacturing and mining are important, and are rapidly increasing in the coal and iron districts.

6. **Commerce.**—The commercial advantages of this group are remarkable. Three of the principal waterways of the continent—the Mississippi, the Ohio, and the Great Lakes—form an almost complete boundary.

On or near this margin lie most of the largest cities in the United States west of Atlantic tide-water. Milwaukee, Chicago, Detroit, Toledo, Cleveland, and Cincinnati are on the inner margin of the district; and Duluth, Minneapolis, St. Paul, St. Louis, Louisville, Pittsburgh, and Buffalo are just outside of it.

The chief business of the large and important inland city Indianapolis, and of all these lake and river ports except Pittsburgh, and of the systems of railways of which they are the centres, is the collection and transportation of the agricultural and grazing products of this vast granary and those of the equally productive neighboring states west of Mississippi River.

Canals connect rivers flowing into the Great Lakes with navigable branches of the Mississippi and the Ohio, the Wisconsin with the Fox, the Illinois with the Chicago, and the Wabash with the Maumee. The falls in the St. Marys River, at the entrance of Lake Superior, are passed by a ship-canal in Michigan.

Most of the rivers of the Mississippi system have high banks called bluffs. The depth of water in these rivers varies greatly during the year, the Ohio sometimes having a "rise" of seventy feet.

7. **Inhabitants.**—The inhabitants are chiefly descendants of immigrants from the North Atlantic and Middle Atlantic States; most of the remainder are European immigrants.

No part of the world possesses a larger proportion of intelligent, industrious, self-reliant citizens; and no equal area surpasses this group of states in the excellence of the common schools and the general interest in public education.

The Germans constitute the greater part of the foreign-born population; the Irish are next in numerical importance; there are also many thousands of Swedes, Norwegians, and Danes.

8. **Ohio.**—Ohio ranks among the first states in the Union in the production of wool and coal, and is the fourth in population. In the amount and variety of its manufactures it exceeds every other state west of the Appalachian Mountains.

Cincinnati, the largest city, and the metropolis of the Ohio Valley, has an extensive trade in provisions and grain, and is one of the principal manufacturing cities in the United States.

Cleveland, the second city, is one of the five Great Lake ports. Toledo, also a lake-port, Dayton, and Columbus, the capital, are among the numerous large cities.

9. Indiana.—Indiana is the eighth state in population, and has a level surface, fertile soil, and mines of block-coal. It is among the first states in the production of wheat, and produces a large amount of other grains and live-stock.

Indianapolis, the capital and largest city, is a great railroad centre, and one of the most important and rapidly growing cities of the Central States. Evansville and Fort Wayne are next in population.

10. **Illinois.**—Illinois is the first state in the Union in the production of corn and wheat, the second in that of coal, and is the third in population. It possesses one of the most extensive coal-fields in the world.

This state is mostly prairie, with low hills on the Ohio and bluffs on the Mississippi.

Chicago, the second city in the Union, and the commercial metropolis of the St. Lawrence basin, is the chief lumber and pork market in America, and, next to London, the greatest grain market in the world.

A large number of railways radiate from it as a centre. The city is of recent and remarkably rapid growth, its population having increased over one hundred per cent. in the last ten years. Originally built on low ground, it has become, in its grading, drainage, and water-supply, a monument to the energy, sagacity, and public spirit of its citizens.

In October, 1871, a fire, one of the most destructive in modern times, swept away three and a quarter square miles of its most valuable storehouses and residences. The direct loss was estimated at nearly \$200,000,000, and the loss of business at \$90,000,000 more. Notwithstanding this sudden calamity, the most extensive and disastrous that ever befell an American community, the new Chicago that has already sprung from the ashes of the old is in every respect a grander city.

Among other important cities are Peoria and Quincy. Springfield is the capital.

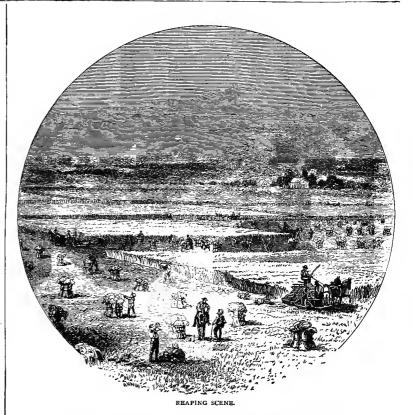
11. **Wisconsin.**—Wisconsin resembles Illinois in the abundant production of wheat, and Michigan in that of lumber. This state has a large number of beautiful lakes; it also has an abundance of water-power, that of the Fox River, between Winnebago Lake and Green Bay, being among the most valuable in the United States.

The population is mostly in the south.

Milwaukee, the largest city, is one of the five Great Lake ports, and has a large commerce in breadstuffs, provisions, and lumber. La Crosse, Oshkosh, Racine, and Eau Claire are important places. Madison is the capital.

12. **Michigan.**—Michigan consists of two peninsulas. It is bordered by four of the five Great Lakes, and has more coast than any other state excepting Florida.

The population is mostly in the south, which is fertile. The northern part of the southern peninsula is sandy, and covered with valuable forests of white pine. The North Central States furnish a ready market for the salt of Saginaw and for the lumber of Saginaw and of the eastern shore of Lake Michigan. Other



important productions are white-fish from the Great Lakes and copper and iron from the shores of Lake Superior.

The country along the western coast of the southern peninsula is known as the Fruit Belt.

The relatively warm water of Lake Michigan causes southerly winds to prevail on this coast in winter, which gives to these shores so mild a winter climate that fruit trees are seldom injured by extreme cold.

Detroit, the eastern entrance to Michigan and the upper lakes, is the largest city. Grand Rapids and Saginaw are large and important manufacturing cities. Lansing is the capital.

Questions (I.)—1. Where is this group situated?—2. What peculiarity has its surface? Where are the prairie regions? The forest regions?-3. What is the character of the climate?-4. What minerals in the hilly region near Lake Superior? In that near the Ohio? Where is the lead region? Which of these states produces salt? -5. Name the two leading pursuits. What is said of the products? Of manufacture ing and mining?-6. What is said of the commercial advantages? Name the three great water-ways. What do they form? What is said of this boundary? What cities are on the inner margin of this district? What cities are just outside of it? What is the chief business of these cities?—7. Who are the inhabitants?—8. For what is Ohio noted? Cincinnati? Cleveland? What cities are next in size? Which of these is the capital?-9. For what is Indiana noted? Indianapolis? What other important cities?-10. For what is Illinois noted? What is said of its coal-fields? For what is Chicago noted? What other important cities? What city is the capital?—11. What are the principal productions of Wisconsin? What is said of its lakes and waterpower? For what is Milwaukee noted? What other important places? What city is the capital?—12. For what is Michigan remarkable? Where is its fruit belt: For what is Detroit noted? Grand Rapids and Saginaw? What city is the capital?

(II.)—2. Where are the hilly regions?—6. What is said of the canals? Of the ship-canal? Of the banks of the rivers of the Mississippi system? Of the depth of water? How high is the rise of the Ohio?—7. What is the character of the people of this group? Of the common schools? Name the chief elements of the foreign-born population.—10. What is the character of the surface of Illinois? Of what is Chicago the centre? What is said of its growth? Of its grading, drainage, and water-supply? With what calamity was it visited in 1871? What was the estimated loss? What is said of its present condition?—11. Where is most of the population of Wisconsin?—12. Where is most of the population of Michigan? Where are the forests? For what products do the North Central States furnish a market? What others are important? What part of the state is favorable to the production of fruit?



LIV.

QUESTIONS ON THE MAP.

General.—How many states on this map? Which three belong to the West Central States? (See page 29.) To what do the others belong? Which is the smallest of the seven? The largest? Which are crossed by the Missouri? Which are partly bounded by it?

Minnesota.—What chain of lakes forms the northeast boundary of Minnesota? What ridge in the northern part of the state? What great river rises in this state? In what lake? What branch crosses the southwestern part of this state? What river has its source very near that of the Minnesota? Into what lake does it flow? What city is the capital? What city west of it? North? What city in the southeast on the Mississippi? What one on Lake Superior? In what part of the state are most of the towns?

Iowa.—Between what rivers is Iowa? What river crosses it? What city is the capital? What city on the Missouri? What four cities on the Mississippi?

Missouri.—What mountains in the southwestern part of Missouri? What two mountains in the southeastern part? What river crosses the state? What city is the capital? What two other cities on the Missouri? What two on the Mississippi? What city west of the capital?

North Dakota.—What plateau occupies the central part of North Dakota? What great river west of the plateau? Name its chief branches in the state. What river on the eastern boundary? Its chief branches? What two other rivers east of the plateau? Name the chief cities on each of these rivers. Which is the capital?

South Dakota.—What two rivers cross the state? What rivers form parts of the boundary? Name the chief branches of the Missouri. What three highlands in the state? Where situated? What city is the capital? Name the chief cities of each river valley.

Nebraska.—What boundary river has Nebraska? What branch in the northern part of the state? What river crosses the state? In what part of the state are most of the towns? What city is the capital? What city west of Lincoln? South? What cities on the Missouri River?

Kansas.—What river crosses the southwestern part of Kansas? Which is the chief city on it? What river north of the Arkansas? Of what river is it a branch? What three cities on the Kansas? Which is the capital? What two cities on the Missouri? What city in the southeast?

Travels.—What cities would you pass in a steamboat voyage from St. Louis to St. Paul? From St. Louis to Yankton? By rail from St. Louis to Topeka?

LV.

REVIEW EXERCISES.

States.—How bounded? What is the capital? The largest city?

WEST CENT			STATES OF 'NORTHERN		
States.	Area in Sq. Miles.	Population in 1890.	States.	Area in Sq. Miles.	Population in 1890.
Minnesota	83,365	1,301,826	North Dakota		182,719
Iowa	56,025	1,911,896	South Dakota Nebraska		328,808 1,058,91 0
Missouri	69,415	2,679,184	Kansas	82,080	1,427,096

Cities and Towns.—In what part of the state? How situated? St. Paul? Minneapolis? Duluth? Winona? Stillwater?

DES MOINES? Dubuque? Davenport? Burlington? Council Bluffs? Sioux City?

JEFFERSON CITY? St. Louis? Kansas City? St. Joseph? Springfield? BISMARCK? Fargo?

PIERRE? Sioux Falls?

LINCOLN? Omaha? Hastings? Nebraska City? Plattsmouth? TOPEKA? Leavenworth? Wichita? Kansas City? Atchison?

Mountains.—Where are they?

Height of Land? Ozark? Pilot Knob? Iron? Black Hills?

Rivers.—Where does it rise? In what direction does it flow? Through what states? Into what body of water?

Mississippi? Missouri? Minnesota? Red River of the North? James? Des Moines? Platte? Kansas?

[For Sections LVI. and LVII., see page 54.]

WEST CENTRAL STATES AND STATES OF THE PLAINS.

LVIII.

WEST CENTRAL STATES.

- 1. The five states of this group form a belt of nearly equal width from the Gulf of Mexico to the northern boundary of the United States. (See map on page 28.)
- 2. Surface.—The West Central States resemble each other in the fertility of their soil and in the general level of their surface.

They are mostly low prairies, with timber in the "bottom lands."

The only elevations are the short, low ranges of the Boston and
Ozark Mountains, and the clay and sand hills of Minnesota.

Each state has the Mississippi as its eastern boundary, and is divided almost diagonally by a great navigable branch flowing towards the southeast.

3. Climate. — The chief difference is in climate, which ranges from the short summers and long, cold

winters of Minnesota to the almost tropical seasons of Louisiana.

4. **Productions.**—The difference in climate causes a corresponding difference in the products. Agriculture is the leading interest throughout this group of states. The great staples, in the order of latitude, are rice, sugar, cotton, corn, hemp, and wheat. There are also immense quantities of live stock.

Each of these states strongly resembles its eastern neighbor in climate, soil, and productions.

5. **Population.**—The population of the northern half of this group is mostly derived from the same sources and is of the same general character as that of the North Central States. Public education is provided for with equal liberality, and the common schools are among the first in excellence. The population of the southern half of the

eral wealth.

St. Louis, in Missouri; Minneapolis The chief commercial centres are

commercial advantages.

and St. Paul, in Minnesota; and New

Orleans, in Louisiana.

con-

tains the crest of the Great Low Plain

of North America.

7. Minnesota. — Minnesota

the Height of Land, flow by Red River of the North into Hudson Bay, by the

St. Lawrence into the Atlantic, and by

the Mississippi into the Gulf of Mexico.

In the north are numerous lakes.

The waters from this crest, which is called

 H^{out}

Cities and Towns.—In what part of the state?

BATON ROUGE? New Orleans? Shreveport?

LITTLE ROCK? Ft. Smith? Pine Bluff?

situated?

Sher-

AUSTIN? Galveston? San Antonio? Houston?

Guthrie?

Tahlequah? Vinita?

aldsonville?

man? Dallas? Ft. Worth? Waco? Laredo?

Mountains.—Where are they?

Pea Ridge? Boston? Lakes.—Where is it?

OUESTIONS ON THE MAP

General.—How many states and territories on this map? Texas, Oklahoma, and Indian Territory?

towns on the Arkansas? What town southwest of the capital? Arkansas, -- What mountains in the northwest? What river crosses the state? What is the capital? What other Louisiana. —What river crosses the centre of Louisiana

What two lakes in the southeast? What cities on the Mississippi River? Which is the capital? What city on Red River Indian Territory.—What rivers cross the territory?

Oklahoma.—What rivers cross the territory?

Texas.—Name the six chief rivers of Texas. part is mountainous? What are the chief towns?

the coast? Locate four other cities in the south. Four What city on bays on the coast? What is the capital? towards the northeast.

REVIEW EXERCISES

WEST CEN	T CENTRAL STATES	STATES:	WEST CENTRAL STATES: STATES OF THE PLAINS: SOUTHERN DIVISION.	TES OF THE PLA SOUTHERN DIVISION.	PLAINS 10N.
States.	Area in Sq. Miles.	Area in Population Sq. Miles. in 1890.	States,	Area in Sq. Miles.	Area in Population Sq. Miles. in 1890.
Arkansas	1	1,128,179	53,850 1,128,179 Indian T	31,400	-
Louisiana 48,720 1,118,587	48,720		Oklahoma T. 39,030 61,834 Texas 265,780 2,235,523	39,030 265,780	61,834 2,235,523

RIVERS. - Where does it rise? In what direction does it

Borgne? Pontchartrain?

flow? Through what states? Into what body of water?

Arkansas? Red? Sabine?

rado? Rio Grande?

Trinity? Brazos? Colo-

States.—How bounded? What is the capital? Largest city?

ü	ion 9.	90	
PLAIN S10N.	Populat in 1890	186,490	2,235,5
TES OF THE PLA SOUTHERN DIVISION.	Area in Population Sq. Miles. in 1890.	39,400	265,780
WEST CENTRAL STATES: STATES OF THE FLAINS: SOUTHERN DIVISION.	States,	53,850 1,128,179 Indian T	Texas 265,780 2,235,523
STATES:	Area in Population Sq. Miles. in 1890.	1,128,179	48,720 1,118,587
T CENTRAL STA! SOUTHERN DIVISION.	Area in Sq. Miles.	53,850	48,720
WEST CEN SOUTHE	States.	Arkansas	Louisiana
	-		

9. Missouri.—Missouri is noted for its advantageous central position, and for the variety and extent of its agricultural and min-Sioux City, on the Missouri, and Dubuque, are important cities. Des Moines is the capital Davenport, and Burlington, on the Mississippi

Coal and iron, the two most important minerals of civilization, are abundant and excellent; iron is the leading mineral interest. Iron Mountain and Pilot Knob are remarkable masses of iron-ore. It is the fifth state in population.

rich and extensive deposits of lead-ore Lead-mining is an important interest, the being among the most valuable resources of the state.

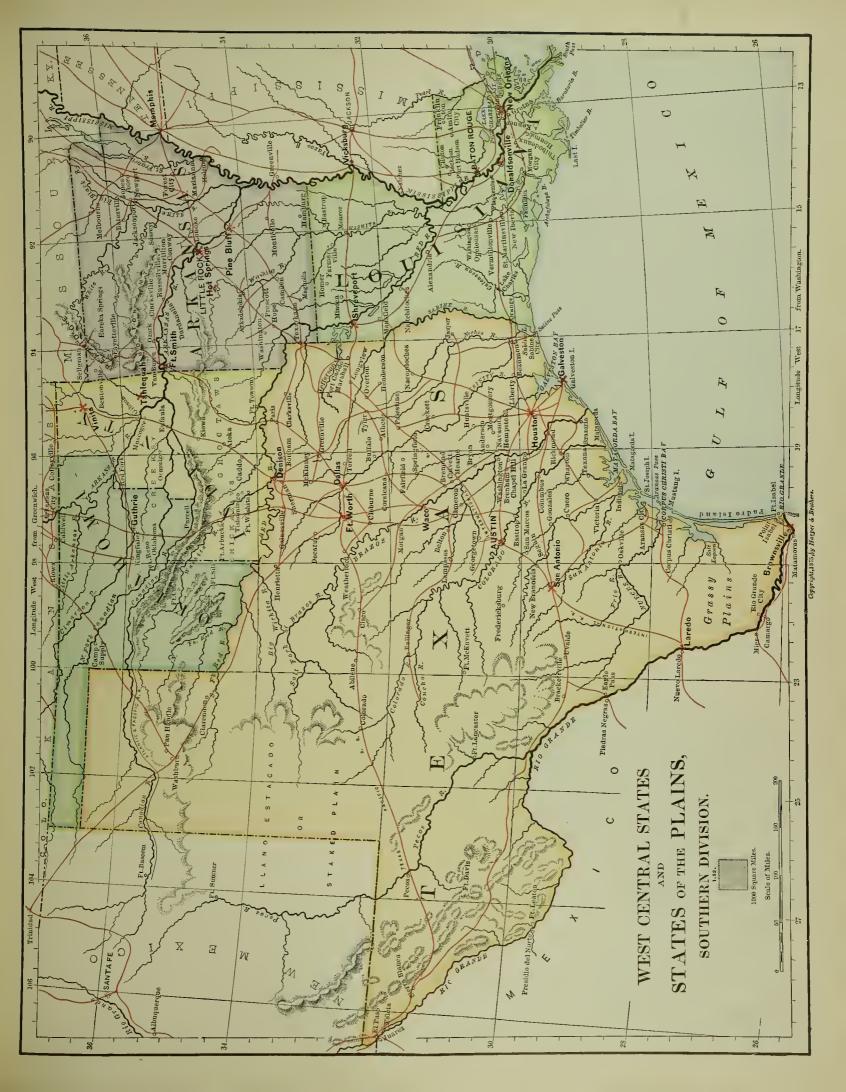
sissippi Valley, is the fifth city of the United States in population, and is he central depot of exchange and St. Louis, the metropolis of the Missupply for a large part of the Union.

ness. Four great water-ways, the Mistensive and rapidly increasing busisouri, Ohio, and Upper and Lower Mississippi, with their numerous branches, and grazing products it has a very ex-Its chief manufactures are iron, flour, and machinery. As a depot for agricultural

Iowa consists of fertile rolling prairies. It is 8. Iowa.—The greater part of the surface of one of the first states in the Union in the production of Indian corn, of oats, and of wheat, It is rich in coal and lead. 6. Commerce.—The numerous railways and the many navigable rivers present remarkable group is similar to that of the South Central



It has many rapid rivers with inexhaustible water-power. St. Paul, at the head of navigation on the Mississippi, is the capital. Min-It employs its neapolis, at the Falls of St. Anthony, immense water-power chiefly in the manufacture of lumber and flour. is the largest city.



make it the centre of many thousands of miles of river navigation, about 1000 miles being within the limits of the state or on its boundaries. Very many lines of railway centre at St. Louis, and connect it with all parts of the country, from Galveston and Mobile to New York, Boston, and San Francisco. A great railroad bridge, with arches of steel, connects it directly with the railroads east of the Mississippi.

Other important places are Kansas City and St. Joseph. The capital is Jefferson City.

10. Arkansas.—The great staples are cotton and corn.

Arkansas is rich in water-power, timber, and coal, and in valuable ores of iron, zinc, lead, and silver. The development of these great resources has but lately begun.

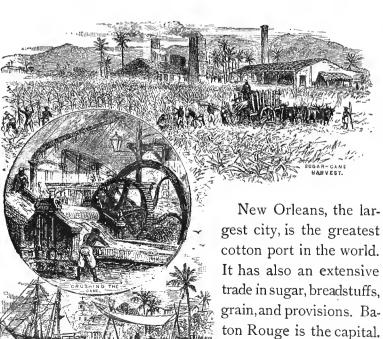
Little Rock is the capital and largest city.

11. **Louisiana.**—Louisiana was settled by the French. Their descendants, who still constitute a considerable part of the population, speak the French language, and are called creoles—that is, natives.



This state is in the lowest part of the Great Plain. The surface of the Lower Mississippi during the annual floods is several feet higher than the country through which it passes, especially in Louisiana, and broad walls of earth, called levees, have been constructed to confine it and its tributaries within their banks. Sometimes the water breaks through the levees, and hundreds of square miles of valuable sugar, rice, and cotton plantations are ruined. Such a breach is called a crevasse.

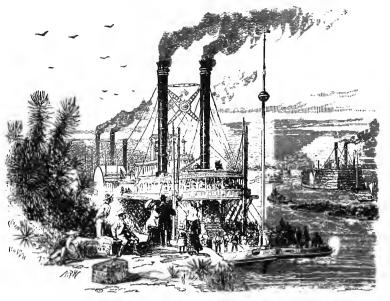
The state has no mineral wealth except a vein of pure rock-salt, singularly situated in a low island in the southern marshes.



New Orleans is about one

hundred miles from the

mouth of Mississippi



SCENE ON THE MISSISSIPPI RIVER

River. Trunk railways connect New Orleans, on the one hand, with the whole system of roads east of the Mississippi, and on the other with the great transcontinental lines which extend into Mexico and to the ports of the Pacific Ocean. It is also connected with the Gulf through lakes Pontchartrain and Borgne by canals for vessels of light draught.

Questions (I.)—1. What do the five states of this group form?—2. In what respects do they resemble each other? What river forms their eastern boundary? By what is each divided?—3. In what do they chiefly differ?—4. What other differences arise from difference in climate? What is the leading interest? Name the great staples in the order of their latitude. What other important products?—5. What is said of the population of the northern half of this group? Of public education? Of the common schools? Of the population of the southern half?—6. What commercial advantages has this group? What is the chief commercial centre? What other two important depots?—7. What elevation does Minnesota contain? For what is Minnesota noted? St. Paul? Minneapolis?—8. What kind of a surface has Iowa? What are its products? Which is the largest city? What other important towns?—9. For what is Missouri noted? For what is St. Louis distinguished? What other important places? What is the capital?—10. What are the great staples of Arkansas? What city is the capital?—11. By whom was Lonisiana settled? Who are the creoles? For what is New Orleans noted? What other trade has it? What is the capital?

(II.)—2. What is the general character of the surface of the West Central States? What elevations have they?—4. What does each of these states resemble?—7. How is the Height of Land drained? Where are the lakes?—9. How does Missouri rank in population? What is said of its coal and iron? Which is the leading mineral interest? What remarkable iron-mines has it? What is said of its lead-mines? What manufactures has St. Louis? What other business has it? Of what is it the centre? What is said of its railway connections?—10. What is said of the resources of Arkansas?—11. Where is Louisiana situated? How does the height of its surface compare with that of the Mississippi? What are levees? What is their use? What is a crevasse? What mineral has this state? Where is New Orleans situated? What is said of its railways? In what other way is it connected with the Gulf?

LIX.

STATES OF THE PLAINS.

- 1. Situation.—This group of five states and two territories lies chiefly in the eastern division of the Great Western Highland.
- 2. Surface.—It consists principally of rolling prairies, and is part of the high plains that extend west to the Rocky Mountains.

- In Texas these plains are called the Llano Estacado, or "Staked Plain," from the stake-like stems of a plant that still grows in abundance on those plains.
- 3. Inhabitants.—The inhabitants are mostly in the eastern part, near the great rivers, the country here being lower, bet e watered, and more fertile.
- 4. North Dakota.—North Dakota is noted for the abundance and excellence of its wheat, its leading staple. The most populous section is in the broad valley of the Red River and parts adjacent. The surface is mostly a rolling prairie, broken by low and broad plateaus, and, especially in the west, by many flat-topped hills, called buttes. Most of the population is east of the Missouri. Bismarck is the capital and Fargo the largest city.

The highest part of the state is west of the Little Missouri along the southwestern boundary, and is over 3000 feet above the sea; the lowest part is at the northeast corner, in the Red River valley, 790 feet above the sea. This river is the only one in the United States whose waters flow finally into Hudson Bay. The Missouri and the Red are both navigable. North Dakota is crossed from east to west by several great trunk lines of railway. The eastern part of the state is covered with a network of railways.

5. South Dakota.—As in North Dakota, the general prairie surface of South Dakota is broken by low plateaus and hills. The chief products are wheat, Indian corn, flax, beef, pork, and wool. The principal farming region is east of Missouri River, and includes an extensive dairy country. The southwestern counties are covered by the Black Hills, which are noted as a stock region, and are rich in mines of gold, silver, and other metals. The Black Hills country is one of the two most populous regions of the state. The other is a group of the eastern and southeastern counties. Pierre is the capital of the state; Sioux Falls is the largest city.

The Black Hills country, the highest part of the state, reaches an elevation of 7000 feet above the sea; the lowest point, the south-eastern corner, is about 1000 feet. The country between the Black Hills and the Missouri is dotted with buttes and other low hills, and drained by a great number of rivers whose beds lie far below the general surface of the prairie. The most remarkable district of this extensive region is known as the Bad Lands. Notwithstanding this name, these lands furnish protection and excellent pasture during the winter to immense herds of cattle.

6. Nebraska.—Nebraska exceeds in area New England and New Jersey taken together. The principal products are wheat and corn, cattle, and other live-stock. Lincoln is the capital; Omaha is the largest city.

The state is a vast diversified plain, more than half of it being a rolling prairie. Except in a few districts the soil is highly fertile; the eastern part is the most productive region, on account of its greater rainfall. Among many railroads is the Union Pacific, which passes through the entire length of the state, and is a part of a great transcontinental trunk line.

7. Kansas.—Kansas, the "Central State," is about twice the size of Ohio. In soil, climate, and productions it greatly resembles Nebraska. It is rich in coal, lead, zinc, and other valuable minerals. It is noted for its abundant crops of Indian corn. Topeka is the capital; Kansas City is the largest city.

Kansas is well supplied with railroads, some of which are parts of transcontinental lines. Near the western border of the state the waters of Arkansas River are extensively used for irrigation.

- 8. Indian Territory.—Indian Territory, more correctly the Indian country, is a country set apart by Congress as the home of certain Indian tribes, or nations, who have at different periods been transferred from other parts of the United States. Each is organized as a tribe or nation independent of all others, and has its own internal government. The chief tribes are the Cherokees, Chickasaws, Choctaws, Creeks, and Seminoles.
- 9. Oklahoma.—The climate is rather dry, but suitable for stock-raising The broad and well-watered river-valleys are well adapted for farming. Guthrie, Oklahoma, and King Fisher are the chief towns.

Oklahoma was organized as a territory in 1890 out of the western part of Indian Territory and some public land between Texas and Colorado.

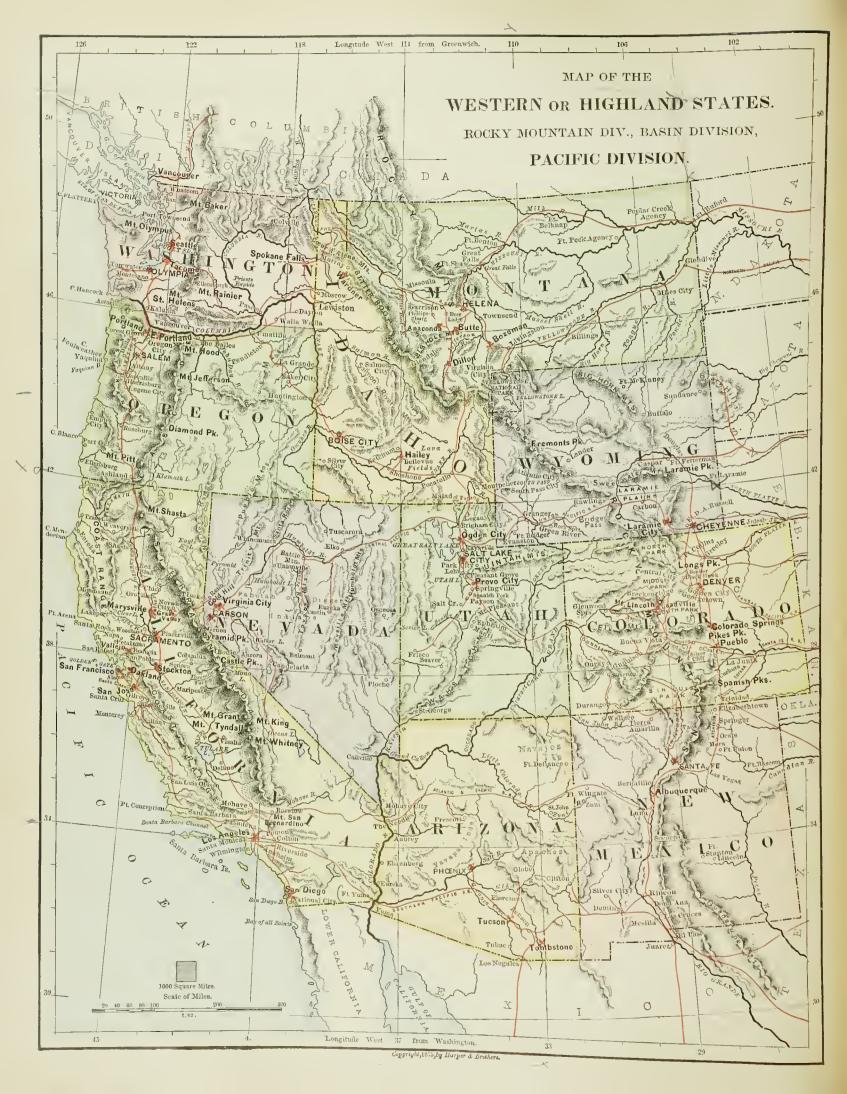
10. **Texas.**—Texas is the largest state in the Union, and is noted for its great extent of fertile soil. As an agricultural state its resources are immense. Corn, cotton, cattle, and wool are the chief staples. Dallas and San Antonio are the largest cities. Galveston is the chief port. Houston, Ft. Worth, and Waco are railway centres. Austin is the capital.

The area of Texas is more than five times that of New York, or more than thirty times that of Massachusetts. The population is rapidly increasing by immigration. There are no very large cities.

Texas has at least 25,000 square miles suitable for the cultivation of cotton. It has an equal area adapted to the cultivation of wheat. It has a very large trade in cattle, hides, wool, and cotton. The northern part of the state has abundance of coal, iron, and copper.

Questions (I.)—1. Where is this group situated?—2. Of what does it principally consist?—3. Where are most of the inhabitants located? Why?—4. Describe North Dakota. What are the chief staples? What town is the capital?—5. Describe South Dakota. Name its principal products. The capital.—6. Describe Nebraska. Name the principal products. Which is the largest city? The capital?—7. Describe Kansas. Which is the largest city? The capital?—8. What is the Indian Territory?—9. Describe Oklahoma.—10. For what is Texas remarkable? What is said of its resources? What are its chief staples? Its largest cities? Its important railway centres? Its capital?

(II.)—2. What name is given to these plains in Texas? Why?—4. What is said of the rivers and railways of North Dakota?—5. What is said of the Black Hills country? What is said of the "Bad Lands"?—6. What is said of the soil and rainfall of Nebraska? Of the railroads?—7. Of the railroads of Kansas?—9. When was Oklahoma organized?—10. What is the comparative size of Texas? What is said of the population? Of the cities? Of the production of cotton? Of wheat? Of the trade in cattle? In what part of the state are the minerals? What is said of Galveston?



LX.

QUESTIONS ON THE MAP.

General.—How many groups of states and territories on this map? (See page 29.) How many states and how many territories in each group? What territory on the Pacific is not on this map? (Alaska.) In what direction do the Rocky Mountains extend in Wyoming and Montana? In Colorado and New Mexico? Which is the principal mountain range in Washington and Oregon? What is it called in California? What mountain ranges along the coast? In what states? What great river breaks through the Cascade Mountains? Which are its two chief branches? Through what territories does the Colorado flow? What two rivers form it? What branch near its mouth?

Montana.—Name the two chief rivers of Montana. What railroad crosses it? What town is the capital? What towns south of Helena? In what part of the state are most of the towns?

Wyoming.—What mountain range in the western part of Wyoming? What peak in this range? What great rivers have their sources in this range? What park is mostly in Wyoming? In what part? What lake in the park? What railroad crosses this state? Through what part? What town is the capital? What town nearly west of it?

Colorado.—What four natural parks are in Colorado? What moun tain peaks in this state? What great rivers flow from Colorado? What city is the capital? What city southwest of Denver? What two south? On which side of the parks are most of the towns? What great railroads wholly or partly in Colorado?

New Mexico. -- What river passes through New Mexico? Which are the chief railroads of this territory? What town is the capital? What town southwest of Santa Fé?

Idaho.—Which is the chief river of Idaho? Its chief railway? What town is the capital? What town east of Boisé City?

Nevada.-In what part of Nevada are most of the towns? What is the capital? What two towns north of Carson? What railroad?

Utah.—What chain of mountains in the northeast of Utah? What chain southwest of the Uintah Mountains? What lakes in this territory? What city is the capital? What city north of Salt Lake City? South? What railroads in Utah? In what parts are most of the towns?

Arizona.—What two rivers cross Arizona? What cañons in the Colorado River? Where are most of the large towns? What town is the capital? What two towns southeast? What railroads cross Arizona?

Alaska.-What is the principal river of Alaska? (See Map of North America.) What are the chief towns? On what islands?

Washington.—What cape in the northwestern part of Washington? At the entrance of what strait? In what part of the state are most of the towns? On what sound? What is the capital? What city east of Columbia River? What railroad crosses the state?

Oregon.—What two boundary rivers has Oregon? In what part of the state are most of the towns? What city is the capital? What city

north of Salem? On what river? Of what river is it a branch? In what river valleys are most of the railways?

California.—Which is the chief mountain range in California? What peak at the northern end of the Sierra Nevada Mountains? What two peaks near their southern extremity? Which is the largest lake in the state? Which are the two chief rivers? Through what famous valley does a branch of the San Joaquin flow? What river in the northern part of the state separates the Cascade Mountains from the Sierra Nevada? What strait at the entrance of the Bay of San Francisco? What city is the capital? What city nearly south of Sacramento? North of Sacramento? West of Stockton? West of Oakland? South of Oakland? North of Oakland? What two towns on the southern

LXI.

REVIEW EXERCISES.

States and Territories.—How bounded? What is the capital? The largest city?

ROCKY MOUNT	AIN DIV	ision.	BASIN	DIVISIO	N.	PACIF16	C DIVIS	10N.
States or Territories.	Area in Sq.Miles		States or Territories.	Area in Sq. Miles.	Pop. in 1890.	States or Territories,	Area in Sq.Miles.	Pop. in 1890.
Montana	146,080	182,159	Idaho	84,800	84,385	Alaska T	577,400	31,000
Wyoming	97,890	60,705	Nevada	110,700	45,761	Washington .	69,180	349,890
Colorado	103,925	412,198	Utah T	84,970	207,905	Oregon	96,080	818,767
New Mexico T.	122,580	158,598	Arizona T.	118,020	59,620	California	158,860	1,208,180

Cities and Towns.—In what part of the state? How situated!

HELENA? Butte City?

CHEYENNE? Laramie City?

DENVER? Leadville? Pueblo? Colorado Springs?

SANTA FÉ? Albuquerque?

Boisé City? Hailey? Wardner?

CARSON? Virginia City? Gold Hill?

SALT LAKE CITY? Ogden City? Provo City?

PHŒNIX? Tucson? Tombstone?

SITKA? St. Paul?

OLYMPIA? Tacoma? Seattle? Spokane Falls?

SALEM? Portland?

SACRAMENTO? San Francisco? Oakland? San José? Vallejo?

Los Angeles? Stockton? Marysville? San Diego?

Mountains.—Where are they?

Rocky? Wind River? Uintah? Wahsatch? Cascade? Sierra Nevada? Coast ranges? Fremonts Peak? Pikes Peak? Mount Shasta? Mount Tyndall? Mount Whitney? Mount Lincoln?

Rivers.—Where does it rise? In what direction does it flow? Through what states? Into what body of water?

Missouri? Yellowstone? Colorado? Gila? Green? Grand? Sacramento? San Joaquin? Klamath? Columbia? Snake? Clarkes Fork?

Lakes.—Where is it?

Yellowstone? Great Salt? Tulare? Utah?

WESTERN STATES.

LXII.

WESTERN STATES: ROCKY MOUNTAIN DIVISION.

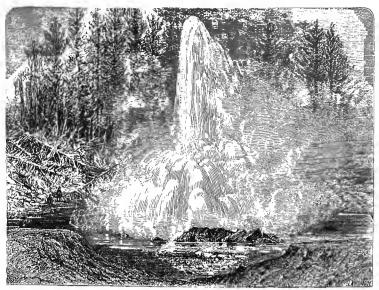
1. Surface.—This group contains the great water-shed of North America.

The Rocky Mountains, one of the highest ranges in North America, under various names, cover the greater part of this division.

The Great Plains constitute the eastern part of the group, and extend to the base of the mountains.

2. The most important valleys enclosed by the Rocky Mountains are the four parks of Colorado.

Some of these are as large as Connecticut or New Jersey. In the front range or eastern wall of the parks are several peaks over 14,000 feet high. The great central chain of the Rocky



GEYSER OF THE YELLOWSTONE.

Mountains, known as the Sierra Madre or National range, reaches a great elevation on the west side of the parks. From the top of Mount Lincoln the eye sweeps over a wilderness of high peaks, at least two hundred of which are nearly 13,000 feet, and not less than twenty-five over 14,000 feet high.

3. **Rivers.**—The only navigable rivers are the Missouri and the Yellowstone in Montana.

The snow on the sides and summits of the lofty mountain ranges, melting under the summer sun, is an unfailing supply to the rivers during the months of drought. These rivers are invaluable as means of irrigation.

4. **Climate.**—The mildness of the winter climate on the east side of the Rocky Mountains, especially in the North and far into British America, is a remarkable fact in the physical geography of this group. It is of exceeding importance in relation to the settlement of these regions. In the higher regions the summers are cold.

Notwithstanding the latitude and the elevation, the climate grows milder and the snow disappears from the plains as we approach the great range. This is rapidly becoming the great grazing region of the continent. Cattle unhoused can live all winter upon the rich grass that covers these plains. They have for ages been the feeding-ground of millions of buffaloes. These valuable wild animals, once found in immense herds, are now exterminated.

Timber is scarce except on the slopes and in the enclosed valleys of the ranges north of Central Colorado. Towards the south the country grows more and more arid, till in New Mexico the land scape is generally one of desolation.

- 5. **Population.**—The total population of this group in 1890 was about the same as that of Connecticut, which has about one one-hundredth of the area.
- 6. **Occupations.**—Mining and stock-raising are the chief occupations, although agriculture is rapidly developing in Colorado. This group is very rich in metals and other valuable minerals.
 - 7. Montana.—Montana has a fine climate, immense

areas of rich soil and of valuable timber, and great mineral wealth.

It produces a large amount of gold, silver, copper, and live-stock.

Helena, the capital, is on the Northern Pacific Railroad.

8. **Wyoming.**—The greater part of the population of Wyoming are in the towns on the line of the Union Pacific Railroad and its branches. Wool and immense quantities of live-stock, chiefly cattle and sheep, are shipped to eastern markets.

This state includes the greater part of the Yellowstone National Park, which surrounds Yellowstone Lake, and has an area of about 3600 square miles. Its deep cañous, lofty falls, and numerous bathing-pools, geysers, and lakes, make it in many respects the most wonderful portion of the continent, and even of the world. It has been set aside by Congress as a "perpetual reservation for the benefit and instruction of mankind."

Cheyenne is the capital and largest city.

9. **Colorado.**—Colorado contains the Great Parks and the loftiest ranges of the Rocky Mountains.

It is rich in mines of gold, silver, copper, lead, coal, iron, and salt. The mountain "pineries" furnish a large amount of lumber. Grazing and coal-mining are becoming leading industries. Irrigation is extensively employed in agriculture.

Denver, the capital and largest city, is about 5000 feet above the sea.

10. **New Mexico.**—New Mexico was settled more than three centuries ago (1550) by the Spaniards.

The inhabitants are chiefly a mixed race, descended from civilized Indians and the Spanish settlers, and speak the Spanish language; they are mostly in the fertile Valley of the Rio Grande, a narrow, swift, and shallow stream, nearly all the waters of which are consumed in irrigation in dry seasons. The popula-



UPPER FALL OF THE YELLOWSTONE.

tion of the territory has lately begun to increase by immigration. Two transcontinental railways now cross New Mexico, and common schools have been established.

Santa Fé, 6840 feet above the sea, is the capital. Albuquerque and Las Vegas are places of growing importance.

Questions (I.)-1. What does this group contain?-2. Which are the most important valleys?-3. Which are the only navigable rivers?-4. What remarkable fact in regard to climate? Why important?—5. What is said of the population?—6. What are the principal occupations? What partial exceptions? In what is this group rich? -7. What is said of Montana? Name its chief resources. What is the capital?-8. What is said of the population of Wyoming? What are its chief products? What is the capital?-9. For what is Colorado noted? What is its capital and largest city?-10. When and by whom was New Mexico settled?

(11.)-1. What mountains in this division? What is the character of the eastern part?-2. What is the size of these parks? What peaks east of them? What mountain chain west of the parks? What is said of the view from Mount Lincoln?-3. What are the effects and uses of the snow?-4. What is the character of this part of the plains? To what is it best adapted? Why? What is said of the buffaloes? Where is timber found? What is the character of the country towards the south ?--- 7. What does Montana produce ?--- 8. What is said of the highest mountain chain of Wyoming? Of the National Park?-9. What minerals has Colorado? What other industries?—10. Who are the present inhabitants of New Mexico? Where are they located? What is the character of the Rio Grande? What is said of the population? What is said of the railways of the Territory of New Mexico?

LXIII.

WESTERN STATES: BASIN DIVISION.

- 1. Situation. Nevada and Idaho and the territories of Utah, and Arizona occupy the central and larger part of the Great Basin, which is nearly enclosed by the Sierra Nevada, Cascade, and Rocky Mountains.
- 2. **Surface.**—The surface is very rugged and uneven.

Numerous short parallel chains cover nearly the whole region. The lofty Wahsatch chain divides the high plateau of the Colorado, the waters of which flow to the Guif of California, from the lower plateau of the Great Basin, where the swift streams are lost in salt lakes near the foot of its mountain walls.

3. Climate.—The climate is exceedingly dry. This is particularly the case in the south, where the summers are very hot; in the extreme north the winter is cold, with deep snows.

The temperature is very variable. In consequence of the great

extent of dry soil and naked rock, an intensely warm day is followed, even in midsummer, by a cold night.

- 4. **Vegetation.**—Timber is found only on the highest mountains. The brown sage-bush in the north and the cactus in the south are the characteristic vegetation.
- 5. Population. More than half the population of this group of states is in Utah.
- 6. Occupations. The chief occupation in Utah is agriculture; in the remaining regions, mining.

7. Idaho. — Idaho produces large amounts of gold and silver. Boisé City is the capital.

> 8. Nevada.—Nevada is chiefly remarkable for its mineral wealth. For several years it produced more

> > than half of the lead mined in the United States, and nearly one third of the silver. Virginia City and Gold Hill are famous for rich mines of silver.

> > > A single vein of one of these mines is said to have yielded over \$22,000,000 in fourteen months.

Carson is the capital.

The towns are at the silvermines, on the eastern slope of the Sierra Nevada.

9. Utah.—Utah is remarkable as the home of the Mormons, or Latter-day Saints; they constitute four fifths of the population.

> Their religion has many peculiarities, the most important of which is polygamy. The Mormons occupy fertile valleys at the western base of the Wahsatch range, and carry on an extensive agriculture by means of irriga-

Salt Lake City is the capital and largest city.

10. Arizona.—Arizona and Southern California have a drier climate than any other part of the United States.

The annual rain-fall near the mouth of the Colorado is only about three inches; that of Southern Alabama is sixty-three inches. The canons of the Colorado are the greatest and deepest river gorges in the world. The river is navigable to Callville; beyond this for more than three hundred miles the river and its tributaries flow with great swiftness through narrow chasms with nearly perpendicular walls, and over rocky beds from 3000 to 6000 feet below the general level of the plateau.



Arizona is very rich in mineral treasures. The mining of silver and of copper is the leading industry. Coal, salt, and gold are abundant. Two transcontinental railways cross the territory. In the eastern part of the territory are large pine forests.

Phœnix is the capital. Tucson is the largest town.

Questions (I.)—1. What region does this group occupy?—2. What is the character of the surface?—3. Of the climate? What is the climate in the south? In the north?—4. What is the vegetation?—5. Where is most of the population?—6. The chief occupation in Utah? In the remaining regions?—7. What metals does Idaho produce? What is the capital?—8. For what is the State of Nevada remarkable? For what are Virginia City and Gold Hill famous? What is the capital?—9. For what is Utah Territory remarkable? What city is the capital?—10. For what is Arizona Territory remarkable? What is the capital?

(11.)—2. What is said of the mountain chains? How does the Wahsatch chain divide this section?—3. What is said of the temperature?—8. Of the amount of silver yielded by a single vein? Where are the towns?—9. What peculiarity has the religion of the Mormons? Where are the Mormons located? What is their chief occupation?—10. How does the rain-fall of Arizona compare with that of Southern Alabama? What is said of the cañons of the Colorado? What is said of the minerals of Arizona? Of the forests? What two railways cross the territory?

LXIV.

WESTERN STATES: PACIFIC DIVISION.

1. **Surface.**—The lofty range known in California as the Sierra Nevada, and in Oregon and Washington as the Cascade, passes through this entire group of states.

It is nearly as high as the Rocky Mountains, but has fewer passes. East of these mountains is a portion of the great interior plateau; in Washington it is called the Great Plain of the Columbia, and is about 2000 feet above the ocean.

Near the coast is a series of short, low chains, called the Coast ranges.

They are parallel to the great interior chain. The coast is very bold, and without islands.

Between the high chains and the Coast ranges are three important lowlands: the Valley of Puget Sound, in Washington; the Valley of the Willamette, in Oregon; and the California Basin in California. Each of these is the most fertile and important part of the state or territory in which it is situated.

2. Climate.— The climate west of the great mountain range is mild and equable in temperature, but has great extremes of moisture.

Puget Sound has a greater rain-fall than any other part of the United States except Alaska.

- 3. **Occupations.** Agriculture, manufacturing, mining, and lumbering are the leading pursuits.
 - 4. Commerce. Internal com-

merce, except over the Pacific railroads, is quite limited. There are few navigable rivers. The Columbia is navigable to where it breaks through the Cascade Mountains, and again beyond them to Priest Rapids; its great branch, the Snake, to Lewiston, Idaho; the Sacramento and San Joaquin are navigable for a large part of their course; the Colorado more than 300 miles, to the mouth of the Grand Cañon; and the Yukon in Alaska, with its great branch, the Pelly, nearly 3000 miles.

5. Alaska.—The great territory of Alaska, including the Aleutian Islands, was purchased of Russia in 1867.

Mountain chains extend along the whole coast and through the islands; they contain many volcanoes. The area of Alaska is over 500,000 square miles. The greater part has a severe Arctic climate. The west coasts have a mild, rainy climate. The rainfall at Sitka is about ninety inches a year; there are but few clear days. In the south are heavy forests.

A governor, collector of customs, and a few other officials reside at Sitka, and are appointed by the President of the United States. It has no legislature. The inhabitants are mostly Indians, Esquimaux, and half-breeds.

They live on the coasts and islands, being almost exclusively dependent upon the fisheries, which are among the most valuable in the world. The skins of the fur-seal are the chief article of export.

6. Washington.—Washington has the most extensive and valuable lumber forests in the United States.

In the number and excellence of its bays and harbors it is unsurpassed. The eastern half is noted for wheat and live-stock; owing to the mild and moist climate, the western half is densely covered with valuable forests of pine and cedar. The short streams falling into Puget Sound furnish exhaustless water-power. Coal is abundant.

The principal exports are lumber and wheat.

Olympia is the capital. Seattle, Tacoma, and Spokane Falls are the chief cities.

7. **Oregon.** — The greater part of the population of Oregon is in the fertile Valley of the Willamette. Wool-growing and stock-raising are the principal occupations.

The salmon fisheries of the Columbia are of great and increasing importance. Wheat, lumber, and canned salmon are the chief exports.

Though in the latitude of New England, cattle spend the winter in green fields. The Northern Pacific Railroad connects Oregon and Washington with the Great Lakes and the Mississippi Valley.

The coast is deficient in harbors.

Portland, on the Willamette, is the largest city. Salem is the capital.



BIG TREES OF CALIFORNIA

8. California. — California produces more gold and more wine than any other state in the Union. In manufactures it surpasses every other state west of the Mississippi except Missouri. It contains the great double Valley of the Sacramento and the San Joaquin, which is connected with the Pacific Ocean by the Golden Gate at San Francisco, and with the Mississippi Valley by several trunk lines of railway.

The variety and value of the agricultural and mineral riches of this valley are beyond brief description, and make California a proverb for wealth and fruitfulness throughout the

world. The yield of the vast gold-fields of the Sierra places California among the first of the gold-producing countries; yet the annual value of manufactured products already greatly exceeds that of the mineral products, while the results of agriculture nearly equal all the others together.

Wheat, barley, wine, and fruits are excellent in quality and wonderful in quantity. The soil and climate of the southern part of the state are favorable to the cultivation of the orange, olive, fig, almond, and other tropical fruits. They are also favorable to the growth of the mulberry-tree, whose leaves are the food of the silkworm.

The fertile soil, the equable temperature of its climate, the succession of rainy and dry seasons which form its year, and extensive irrigation, give to California the most productive agriculture in the United States.

The area of the state is nearly equal to that of New England, New York, and Pennsylvania.

> Its population in 1890, including more than 75,000 Chinese, was a little more than one fifth of that of the State of New

The Big Trees and the Yosemite Valley are two of the chief wonders of nature.

These trees are gigantic evergreens, some of which are more than 100 feet around, 400 feet high, and 3000 years old.

The Yosemite Valley is a remarkable chasm ten miles long and three in greatest width, with perpendicular walls of granite from 3000 to 5000 feet high, over which the Merced River falls, in three leaps, more than 2000 feet.-

San Francisco, famous for its magnificent harbor and its export of gold and wheat, is the largest city of the Pacific coast from Cape Horn to Japan, and is the fourth city of the United States in foreign commerce. Sacramento is the capital.

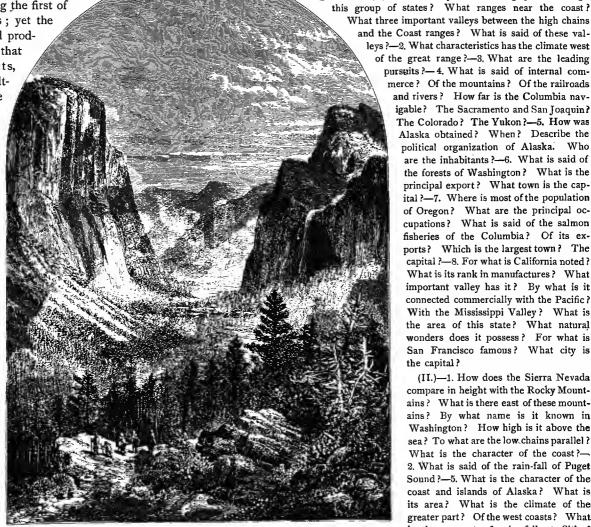
San Francisco is at the western end of the Central Pacific and Southern Pacific railroads, and has an extensive and growing commerce with Europe, the Mississippi Valley, and the Atlantic States, and with the countries and islands of the Pacific Ocean. A large part of the trade with the Atlantic States is carried on by means of ocean steamers and the Panama Railroad. Tea and silk from Japan and China are imported in exchange for grain.

Questions (I.)-1. What lofty mountain range passes through

and the Coast ranges? What is said of these valleys ?-2. What characteristics has the climate west of the great range?-3. What are the leading pursuits?-4. What is said of internal commerce? Of the mountains? Of the railroads and rivers? How far is the Columbia navigable? The Sacramento and San Joaquin? The Colorado? The Yukon?-5. How was Alaska obtained? When? Describe the political organization of Alaska. Who are the inhabitants?-6. What is said of the forests of Washington? What is the principal export? What town is the capital?-7. Where is most of the population of Oregon? What are the principal occupations? What is said of the salmon fisheries of the Columbia? Of its exports? Which is the largest town? The capital ?-8. For what is California noted? What is its rank in manufactures? What important valley has it? By what is it connected commercially with the Pacific? With the Mississippi Valley? What is the area of this state? What natural wonders does it possess? For what is San Francisco famous? What city is the capital?

> (II.)-1. How does the Sierra Nevada compare in height with the Rocky Mountains? What is there east of these mountains? By what name is it known in Washington? How high is it above the sea? To what are the low chains parallel? What is the character of the coast?-2. What is said of the rain-fall of Puget Sound ?-5. What is the character of the coast and islands of Alaska? What is its area? What is the climate of the greater part? Of the west coasts? What is the amount of rain-fall at Sitka? Where are the forests? Where do the

inhabitants live? Upon what are they dependent? What is the chief article of export ?-6. What is said of the bays and harbors of Washington? For what is the eastern half noted? What is said of the western half? What is said of the rivers? What mineral is abundant?-7. How does the climate of Oregon compare with that of New England? What is said of its railroad connections? Of its coast?-8. What is said of the agricultural and mineral riches of California? How does California rank among the gold-producing countries? How do the manufactured compare with the mineral products? How do the agricultural products compare with the manufactured and the mineral products? What is said of the wheat, barley, wine, and fruits? Of the tropical fruits? Of the mulberry-tree? What causes give California the most productive agriculture in the United States? How does the population of California compare with that of the State of New York? Describe the Big Trees. The Yosemite Valley. What is said of the commerce of San Francisco? What other trade route beween. San Francisco and the Atiantic States? In what does the trade with Japan and China consist?



COMMERCIAL UNITED STATES.

LXV.

INDUSTRIES OF THE UNITED STATES.

- I.—1. Agriculture, the chief source of food, and the basis of all other industries, is by far the most important occupation of the people of the United States. The following are the leading products.
- 2. Maize or Indian Corn is the principal grain. In some years the product has exceeded 1770 millions of bushels. Comparatively a small part is exported; the greater part is used in fattening cattle, swine, etc.
- 3. Wheat, the chief bread grain, is the second in quantity and in value. The annual export is greater than that of all other grains, and sometimes exceeds one fourth of the product. Great Britain is the chief foreign purchaser. A much greater part is distributed to the manufacturing, mining, and cotton districts of the United States.
- 4. Oats, barley, rye, buckwheat, and rice are the other grains. Barley is used chiefly in the manufacture of beer; a considerable part of the wheat, rye, and maize is converted into whiskey, starch, and glucose.
- 5. Hay and Potatoes are of great total value, but are too bulky to pay for long transportation.
- 6. Tobacco is a very important product, and is one of the chief articles of export. More than one third of it is produced in Kentucky.
- 7. Cotton is the largest and most valuable export of the United States. Great Britain buys much the greater part, but large quantities are sent to nearly every country of Europe. The crop has amounted to nearly 6 millions of bales, of 475 pounds each, and is still increasing.
 - 8. Sugar is a limited crop. Nearly all of it is produced in Louisiana.
- Note.—Products in 1879, and Leading States.—Maize, 1773 millions of bushels; Illinois, Iowa, Ohio, Missouri, Indiana, and Kansas.—Wheat, 460 millions; Illinois, Indiana, Ohio, Michigan, Minnesota, Iowa, and California.—Oats, 408 millions; Illinois, Iowa, New York, Pennsylvania, and Wisconsin.—Barley, 44 millions; about one half from California and New York.—Rye, 20 millions; Pennsylvania, Illinois, New York, and Wisconsin.—Buckewheat, 12 millions; about two thirds from New York and Pennsylvania.—Rice, II0 millions of pounds; South Carolina, Georgia, and Louisiana.—Hay, 36 millions of tons; New York, Pennsylvania, Illinois, and Ohio.—Potatoes, 200 millions of bushels; New York, Pennsylvania, and Ohio.—Cotton, nearly 6 millions of pounds; Kentucky, Virginia, Pennsylvania, and Ohio.—Cotton, nearly 6 millions of bales; Mississippi, Georgia, Texas, Alabama, and Arkansas.—Cane Sugar, 250,000 hogsheads; Louisiana, Texas, Tennessee, and South Carolina.
 - II.—1. Grazing is a department of agriculture.
- 2. Butter and cheese are produced in great quantities in the hay districts of the Middle Atlantic and North Central States, and are among the leading articles of export.
- 3. Cattle are also raised for beef, hides, and tallow in many parts of the country, but chiefly between the Mississippi River and the Rocky Mountains, and in the Pacific and North Central States.
- 4. Sheep are raised chiefly for mutton, wool, skins, and tallow. California, Ohio, and Illinois are the leading states in wool-growing.
- 5. Swine are raised for pork and lard. The chief supply is from the corn country. St. Louis, Chicago, Cincinnati, Boston, New York, and other cities are extensively engaged in the packing of pork, lard, and beef. The greater part is sent to the cotton states and to the mining and manufacturing districts, and there is a large export trade to Europe, the West Indies, and South America.
- III.—Forest products.—Lumber, turpentine, and bark are the chief forest products. Maine, North Carolina, and Canada furnish the chief supply of lumber for the Atlantic States; Michigan, Wisconsin, and Minnesota for the Central; and Oregon and Washington for the Pacific States. Turpentine is chiefly obtained from the Carolina pine-forests. The bark of the oak and the hemlock is of great value for tanning.
- IV.—Fishing.—The North Atlantic States furnish the chief supply of fish, including cod, mackerel, herring, shad, salmon, and lobsters. Besides these varieties are oysters from the Chesapeake, white-fish from the Great Lakes, and salmon from the Pacific coast.
- V.—1. Minerals.—Coal and iron are the most important of minerals. In these two substances the United States is the richest country in the

- world. The chief deposits of coal are found in a broad belt extending from Maryland and Eastern Pennsylvania to Kansas and Nebraska. There are also valuable deposits in the Rocky Mountains. The principal iron-mines are in the Appalachian Mountains, on the borders of Lake Superior, and in Missouri. Pennsylvania exceeds all other states in the production of both coal and iron. The production and the manufacture of iron are among the most important industries of the United States, especially in the Ohio Valley and in Missouri.
- 2. Petroleum is supplied chiefly by western Pennsylvania. The refined oil, known as kerosene, is one of the leading exports, and is sent to nearly every civilized country.
- 3. In the production of *gold* and *silver* the United States surpasses every other country in the world. The chief supply is obtained from the Western Highland. California produces the greatest amount of gold, and Colorado of silver.
- 4. Among the other important mineral products are *copper* from Arizona, Montana, and Northern Michigan; *lead* from Nevada, Utah, and Missouri; and *salt* from Michigan, New York, West Virginia, and Ohio.
- VI.—Manufactures. The principal manufacturing district of the United States lies east of the Appalachians, and between Portland and Baltimore. The second district is in the North Central States. The leading manufactures of the several states have already been described.

Questions. I.—1. What is said of agriculture?—2. Which is the principal grain? What is said of it?—3. Which grain is second in importance? What is said of the export? What country is the chief purchaser? How is the rest distributed?—4. Name the other grains in the order of their importance. What is the chief use of barley? What grains are in part converted into whiskey?—5. What is said of hay and potatoes?—6. Of tobacco?—7. Of cotton?—8. Of sugar?

II.—1. What is said of grazing?—2. Of butter and cheese?—3. For what other purposes are cattle raised? Where?—4. Which are the chief sheep products? The principal wool states?—5. The chief swine products? What is said of the packing trade?

III.—Name the leading forest products. Name the chief sources of the supply of lumber. Of turpentine. What barks are used in tanning?

IV.—Where are the chief supplies of fish obtained?

V.—1. Which are the most important of minerals? What is said of the coal and iron of the United States? Where are the chief coal deposits? The principal ironmines? Which is the leading state in coal and iron? What else is said of the iron industry?—2. What is said of petroleum? Of kerosene?—3. Of gold and silver?—4. What is said of the other important mineral products?

VI.—Where is the principal manufacturing district? The second district?

LXVI.

TRANSPORTATION.

RAILROADS. I.—The principal or trunk-line railroads of the United States may be divided into Eastern, Central, Southern, and Western.

- II.—Eastern Trunk Lines.—The principal eastern trunk lines lie chiefly in the Middle Atlantic States. They are six in number, and are of leading importance in the railway system of the United States. The greater part of the surplus products of the northern half of the Mississippi Valley finds its way to a market over these lines.
- Grand Trunk—from Portland, through Montreal and Toronto, to Detroit (861 m.). It lies mostly in Canada.
- New York Central and Hudson River from New York, through Poughkeepsie, Albany, and Rochester, to Buffalo (440 m.). The Boston and Albany extends it to Boston (201 m.).
- 3. West Shore—from New York to Buffalo (426 m.), parallel to Hudson River and New York Central.
- 4. New York, Lake Erie, and Western—from New York, through Elmira and Hornellsville, to Buffalo (424 m.), with a branch to Dunkirk.
- 5. Pennsylvania—from Philadelphia, through Harrisburg and Altoona, to Pittsburgh (354 m.). The New Yersey Railroad, from Philadelphia to New York (90 m.), is its eastern extension.

- 6. Baltimore and Ohio—from Baltimore, through Cumberland, to Parkersburg, with a branch through Wheeling to Chicago (852 m.).
- III.—Central Trunk Lines.—These lines lie in the North Central States. Among many important lines the following are prominent:
- 1. Michigan Central—from Detroit, through Jackson and Kalamazoo, to Chicago (284 m.). Extension of the principal Canada roads.
- Lake Shore and Michigan Southern—from Buffalo, through Erie, Cleveland, and Toledo, to Chicago (539 m.). Extension of New York Central and Hudson River, and other New York trunk lines.
- 3. Wabash—from Toledo, through Fort Wayne, Logansport, and Decatur to St. Louis (436 m.), with branches to Keokuk, Quincy, and Hannibal, and direct connections to Kansas City and Omaha.
- 4. New York, Pennsylvania, and Ohio—from Salamanca, through Mansfield and Dayton, to Cincinnati (448 m.). Extension of New York, Lake Erie, and Western.
- 5. Pittsburgh, Fort Wayne, and Chicago from Pittsburgh, through Mansfield and Fort Wayne, to Chicago (468 m.). Extension of the *Pennsylvania*.
- 6. Pittsburgh, Cincinnati, and St. Louis, or "Pan-Handle Route"—from Pittsburgh, through Columbus, to Cincinnati, and through Richmond to Indianapolis. Continued in the St. Louis, Vandalia, Terre Haute, and Indianapolis Road, through Terre Haute to St. Louis (619 m.). Extension of the Pennsylvania.
- 7. Cincinnati, Washington, and Baltimore and Ohio and Mississippi—from Parkersburg, through Cincinnati, to St. Louis (536 m.). Extension of *Baltimore and Ohio*.
- 8. Illinois Central—from Cairo, through Centralia, to Chicago (365 m.), and through Bloomington and Dubuque, to Sioux City (784 m.).
- 9. Chicago and Alton—from Chicago, through Bloomington, Springfield, and Alton, to St. Louis (280 m.).
- IV.—Southern Trunk Lines.—The following groups include most of the chief lines of the South Atlantic and South Central States:
- 1. A line from Washington through Knoxville to Chattanooga; a line from Washington and Richmond, through Atlanta, to Mobile and New Orleans; and a series of railways which, under many names, connect all the Atlantic and river ports from Jacksonville, Fla., to Portland, Me.
- 2. In the second group are lines extending westward from Charleston, Savannah, and other southern Atlantic ports, and crossing the Mississippi at New Orleans, Vicksburg, and Memphis.
- 3. The third group includes lines extending north and south from Louisville to Mobile, Memphis, and New Orleans; from St. Louis and Columbus, Ky., to New Orleans and Mobile; and from Evansville, through Nashville and Montgomery to Mobile, and through Chattanooga and Atlanta to the southern Atlantic ports.

The chief business of these lines is the exchange of the cotton and other products of the South for the manufactures and imports of the Northern and Central Atlantic States, and the breadstuffs, provisions, and manufactures of the country north of the Ohio and the Missouri.

V.-Western Trunk Lines.-These lines lie mostly west of the Mississippi. The Northern Pacific extends from Duluth and St. Paul to various ports on Puget Sound and the Columbia. It unites the railway and water-way systems of the Upper Mississippi and the Lakes with those of the Pacific region. The Central Pacific extends from San Francisco to Ogden, is continued thence by the Union Pacific to Omaha (1914 m.). The Kansas Pacific, from Cheyenne through Denver, terminates at Kansas City. The Southern Pacific extends from San Francisco through southern California and Arizona to Deming in New Mexico, and thence by the Atchison, Topeka, and Santa Fé to Kansas City. It is connected with New Orleans by the Texas Pacific and by Galveston, Harrisburg, and San Antonio. From Omaha, Kansas City, and St. Paul a number of important roads extend these great transcontinental routes to the Mississippi and the Great Lakes. Among these are the Chicago, Burlington, and Quincy, the Chicago, Rock Island, and Pacific, the Chicago and Northwestern, the Chicago and Alton, and the Wabash.

The Chicago, Milwaukee, and St. Paul and the St. Paul, Minneapolis, and Manitoba are parts of a system of important lines connecting the chief ports on Lake Michigan with the great wheat region lying between that lake and the Upper Missouri and extending into Manitoba. Texas, California, and Oregon also have important lines.

WATER-WAYS. VI.—The principal interior water-ways of the United States are the Atlantic System, the Mississippi System, the St. Lawrence and the Great Lakes, and the Canals.

- 1. Atlantic System.—The rivers of the Atlantic system are connected with the extensive coasting trade. They are navigated by thousands of sailing vessels and steamers. A fall or a rapid at the head of navigation is usually the seat of a manufacturing city or town.
 - Note.—The entrances of the rivers of the Atlantic system are more or less obstructed by broad banks or shoals of mud and sand, brought down by the rivers and deposited in the sea just at their mouths. These shoals are called bars. They frequently make it dangerous and sometimes impossible for vessels to enter even at high tide. Most of the rivers between Chesapeake Bay and the Rio Grande can be entered only by vessels of very light draught. The Mississippi admits the largest ocean steamers.
- 2. Mississippi System.—The Mississippi has fifty-five great tributaries, nearly all of which have navigable branches. Numerous steamboats and barges furnish cheap transportation for the bulky products of the valley.
 - Note.—The Mississippi system has nearly 17,000 miles navigable by steamboats, and more than 20,000 by barges. The waters of the great river and its branches are subject to great changes of level, in consequence of the annual floods and droughts. Below the mouth of the Ohio the Mississippi sometimes rises more than fifty feet. At low water some of the branches can be navigated only by steamers of light draught, and some not at all for several months.
- 3. The St. Lawrence and the Great Lakes.—The Great Lakes are freshwater seas, and are traversed by a great number of sailing vessels as well as numerous large steamers. They are closed for several months by ice, but are not affected by tides, floods, or droughts.
- 4. Canals.—The Great Lakes are connected with the Mississippi and Atlantic systems by canals. The Erie Canal in New York is the only one of any present importance. A short ship-canal in Michigan enables vessels to pass the falls at the entrance of Lake Superior. The Falls of Niagara and the rapids in the St. Lawrence are passed by means of ship-canals in Canada.

Note.—A number of important ship-canals have recently been proposed: one to connect the Hudson and Lake Champlain with the St. Lawrence, others to connect the Ohio with the James and the Potomac, the Tennessee with the Alabama and the Altamaha, the Illinois and the Wisconsin with Lake Michigan, and the Minnesota River with the Red River of the North.

Questions. I.—What are trunk lines? How may the trunk lines of the United States be divided?

II.—Where are the principal eastern trunk lines? How many are there? Name them. Why important?—Describe the following roads.*—1. Grand Trunk?—2. New York Central and Hudson River?—3. West Shore?—4. New York, Lake Erie, and Western?—5. Pennsylvania? New Jersey?—6. Baltimore and Ohio? (Has extensions to Washington and Philadelphia, and also to New York.)

III.—Where are the central trunk lines? Name the most important of these lines. Describe them.*—I. Michigan Central?—2. Lake Shore and Michigan Southern?—3. Wabash?—4. New York, Pennsylvania, and Ohio?—5. Pittsburgh, Fort Wayne, and Chicago?—6. Pittsburgh, Cincinnati, and St. Louis?—7. Cincinnati, Washington, and Baltimore? Ohio and Mississippi?—8. Illinois Central?—9. Chicago and Alton?

IV.—How many groups of southern trunk lines?—1. Describe the first group.—2. The second.—3. The third. What is the chief business of these lines?

V.—Where do the western trunk lines mostly lie? Describe the transcontinental routes. The Chicago, Milwaukee, and St. Paul, and the St. Paul, Minneapolis, and Manitoba. What is said of other western lines?

VI.—How are the interior water-ways of the United States divided?—1. With what trade are the Atlantic rivers connected? By what navigated? Of what is a fall or rapid at the head of navigation usually the seat?—2. What is said of the branches of the Mississippi? By what navigated? What is said of the importance of the system? Of the mouth of the Mississippi?—3. Of the Great Lakes? What effect has winter upon all the northern water-ways?—4. How are the first three systems connected? Which is the most important of these canals? Where are the ship-canals?

^{*} Ask the following questions about each of these roads: In what state or states? Between and through what cities? With what other trunk lines connected?

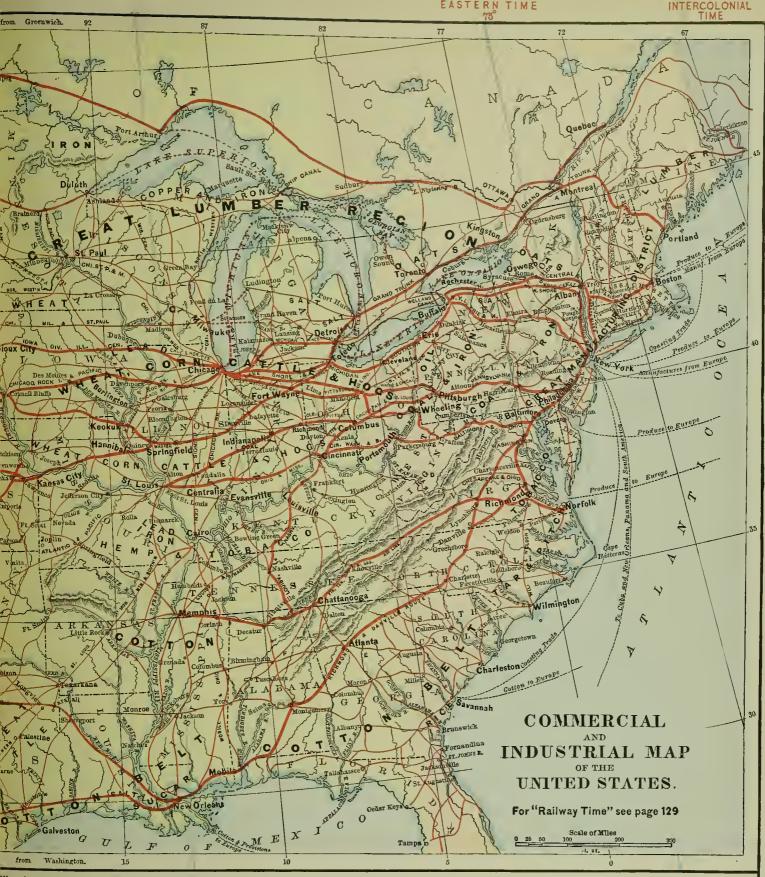
QUESTIONS ON THE MAP.

What great railroad terminates at Portland, Me.? Through what foreign country does it pass? What lake-port of Michigan is at its western end? What railroads in the central part of the state of New York? Between what two cities are they? Which of these is a lake-port? What road connects Albany with Boston? With New York? What road in the southern part of New York? What sea-port at its eastern end? What lake-port at its western end? What road between Philadelphia and Pittsburgh? Baltimore and Wheeling? What is the general direction of these six great roads?

What lake-port is the chief railroad centre of Illinois? What road connects Chicago with Detroit? Of what great eastern roads is the Michigan Central an extension? What road connects Chicago with Buffalo? Through what other lake-ports does the Lake Shore and Michigan Southern pass? With what great railways does it connect in New York? What road from Chicago to Pittsburgh passes through Fort Wayne? Of what Pennsylvania road is it a continuation? What road from Chicago passes through Wheeling to Baltimore? What road from Pittsburgh runs through Columbus and Indianapolis to St. Louis? To what other port on the Ohio has it a branch from Columbus? What road from Toledo passes through

Springfield, Illinois? To what two cities on the sissippi? What road runs north from Cairo? W does it fork? In what city does the eastern by terminate? The western branch? What road nects St. Louis with Chicago? With Indianapoli Pittsburgh? With Cincinnati?

What road connects Chicago with Omaha? what more western road does it connect? What continues the Union Pacific from Ogden to Sancisco? What road extends east from Denver what city does a branch from Denver join the Pacific? What city on the Missouri at the easter of the Kansas Pacific? What road connects K City with Deming? Deming with San Fran



What large city on the Mississippi is connected by alroad with Kansas City? What road runs southest from St. Louis? To what gulf-port does it form art of a line? What other road forms part of a line om St. Louis and Cairo to Galveston? Through hat states does this line run?

What road runs south from Richmond? To what ort? Between Richmond and Atlanta? Norfolk of Chattanooga? Louisville and Memphis? Louisle and Mobile? Cairo and New Orleans? Mobile of Cairo? Memphis and Charleston?

What color on this map shows how far a river is vigable? In which half of the United States are arly all the navigable rivers? Most of the rail-

roads? Why can most of the rivers of the Atlantic coast be ascended only a short distance? In what part of the United States are the longest navigable rivers? Name the chief navigable rivers of the North Atlantic States. Of the Middle Atlantic. The South Atlantic. The South Central. The North Central. The West Central. What rivers of the western half of the United States are partly navigable? Which is the most important navigable river of Canada?

What three states contain nearly all the canals? (New York, Pennsylvania, and Ohio.) Which is the principal canal? (The Eric.) What waters does it connect? What other canals are connected with the Hudson River? (The Champlain and Hudson and

the Delaware and Hudson.) What port on Lake Ontario is at the mouth of a branch of the Erie Canal? On Lake Erie at the mouth of the Erie Canal? At the mouth of a canal from Pittsburgh? From Portsmouth, Ohio? From Cincinnati? From Evansville? How many canals connect the Ohio River with Lake Erie? What river of Illinois is connected by canal with Lake Michigan? At what port?

Note.—It is proposed to unite the following waters by ship-canals: A. (see map) Lake Champlain and the St. Lawrence. B. Ottawa River and Georgian Bay. C. Lake Ontario and Georgian Bay. D. James River and the Kanawha. E. The Tennessee River and the Ocmulgee. F. The Tennessee and the Alabama. G. The Wisconsin and the Fox. H. The Minnesota and the Red River of the North.

LXVII.

QUESTIONS ON THE MAP.

General.—What province of the Dominion of Canada is a peninsula? What one north of Nova Scotia is an island? What one is west of Prince Edward Island? Northwest of New Brunswick? West of Quebec? West of Ontario? On the Pacific? What districts border on Manitoba? On British Columbia? What is the capital of the Dominion? (Ottawa.) Where situated? What large island east of the Dominion? (Newfoundland.) What provinces and districts are crossed by the Canadian Pacific Railway?

Nova Scotia.—What island in the eastern part of Nova Scotia? What four capes on the coast? What bay west? What city is the capital? What town on the southeastern coast?

Prince Edward Island.—What waters surround Prince Edward Island? What town is the capital?

New Brunswick.—What three boundary rivers has New Brunswick? Which is the principal river? What cities on it? What bay on the north? On the south? What city is the capital?

Quebec.—In the valley of what river does the Province of Quebec lie? What river separates Quebec from Ontario? What branch of the St. Lawrence is the outlet of Lake Champlain? Name the two chief cities on the St. Lawrence. Which is the capital?

Ontario.—What lakes border on the Province of Ontario? In what part is the peninsula? What bay north of the peninsula? What lake in the peninsula? What cities on or near Lake Ontario? Which is the capital? What city southwest of Hamilton?

Manitoba.—What river enters Manitoba from the south? What large lakes in this province? What is the capital?

British Columbia.—What mountains form part of the eastern boundary of British Columbia? What is the capital? Which is the principal river? What islands on the coast? What waters surround Vancouver Island? What town on Frazer River? At end of Canadian Pacific Ry.?

• Districts and Territories.—Name the five districts. The capital of four of these. (Regina.) The Territory? What river flows into Win-

nipeg Lake from the west? What river is the outlet of Winnipeg Lake?

Newfoundland.—What waters surround Newfoundland? What city is the capital? What capes on the coast? What small islands south?

LXVIII.

REVIEW EXERCISES.

Countries.— Where is it? How bounded? What is the capital?

Provinces.	Area in Sq. Miles.	Population io 1891.	Provinces.	Area in Sq. Miles.	Population in 1891.	
Nova Scotia	20,907	450,523	Districts of Al-			
Prince Edward	2,133	109,088	berta, Saskat-			
New Brunswick	27,960	321,294	chawan and	301,557	67,554	
Quebec	193,367	1,488,586	Assiniboia,			
Manitoba	65,988	154,442	The Territories	1,865,442	32,168	
British Columbia	384,996	92,767	Newfoundland (inc.			
Ontario	223,001	2,112,989	Lab. coast)	162,737	197,332	

Cities and Towns.—In what part of the province? How situated?—OTTAWA? HALIFAX? Yarmouth? Pictou? FREDERICKTON? St. John? CHARLOTTE Town? QUEBEC? Montreal? TORONTO? Hamilton? London? Kingston? WINNIPEG? New Westminster? VICTORIA? St. Johns? Battleford? REGINA? VANCOUVER?

Islands.—Where situated?—Newfoundland? St. Pierre? Miquelon? Prince Edward? Cape Breton? Vancouver? Queen Charlotte?

Capes.—From what coast does it project?—Race? Bauld? Ray? North? Canso? Sable? Breton?

Gulfs and Bays.— Where is it?—St. Lawrence? Fundy? Chaleur? Georgian? Georgia?

Straits.—Between what lands? What waters does it connect?—Belle Isle? Northumberland? Juan de Fuca? Queen Charlotte Sound?

Rivers.—Where does it rise? In what direction does it flow? Into what body of water?—St. John? St. Lawrence? Richelieu? Ottawa? Saskatchawan? Frazer? St. Croix? Restigouche? Red River of the North?

Lakes.— Where situated? What outlet?—Winnipegoos? Winnipeg? Manitoba? Simcoe?

BRITISH AMERICA.

LXIX.

CANADA AND NEWFOUNDLAND: DESCRIPTION.

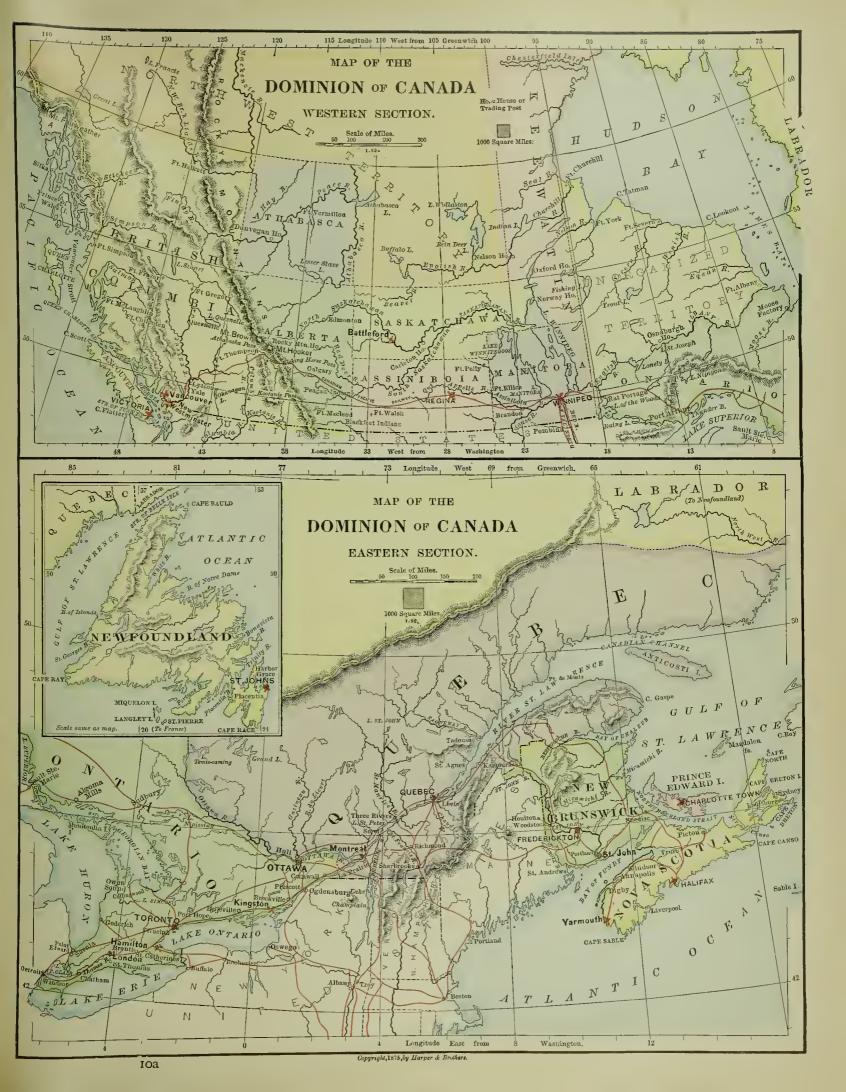
1. **Divisions.**—British America comprises about one third of the continent of North America, together with many adjacent islands. Its chief divisions are the Dominion of Canada and the Province of Newfoundland.

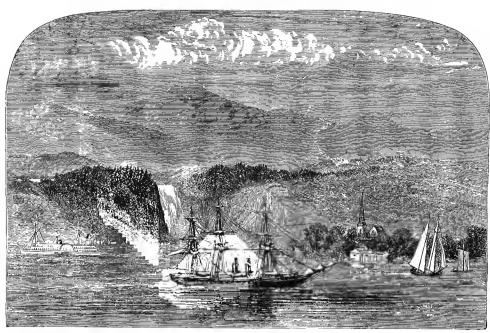
Besides these there are the Bermudas, the Bahamas, Jamaica, and many other colonies in the West Indies.

- 2. **The Dominion of Canada** has an area of about three and a half millions of square miles, or nearly the same as that of the United States. Its population is about four and one half millions. Ottawa is the capital.
 - It is a confederation, consisting of the provinces of Quebec, Ontario, New Brunswick, Nova Scotia, Prince Edward Island.

British Columbia, Manitoba, five Districts, and the Northeast and Northwest Territories. Newfoundland, to which belongs the Labrador coast, is not included in the confederation.

- 3. **Government.**—The chief executive officer is the Governor-General, who is appointed by the sovereign of Great Britain. The Legislature consists of two branches. The members of the lower branch are elected by the people; the members of the other branch are appointed by the Governor-General. Each province has a similar government under a Lieutenant-Governor.
- 4. **Climate.**—The winter climate is severe, except in the southern parts of British Columbia and of Ontario.
- 5. **Surface.**—British Columbia and the provinces east of Manitoba are great forest regions. Between the Rocky Mountains and Manitoba are extensive prairies.





ST. LAWRENCE RIVER

6. **Commercial routes.**—The chief commercial water route is the St. Lawrence and the Great Lakes.

The rapids of the St. Lawrence above Montreal, and the falls of the Niagara and St. Marys rivers, are passed by means of canals. There are about 12,000 miles of railway. The great trunk lines are: The Intercolonial, from Halifax to Quebec; the Grand Trunk, from Portland, Maine, to the St. Clair River; and the Canadian Pacific, a great transcontinental road from Quebec to the Pacific Ocean. In winter the communication of the interior provinces with the ocean is largely through the United States.

- 7. **Trade**.—The principal trade of the provinces is with the United States and Great Britain. The chief exports are lumber, grain, animal products, live-stock, and fish.
- 8. **Nova Scotia.**—Nova Scotia has many good harbors and valuable fisheries, and exports sheep, coal, and gypsum, or plaster of Paris. Halifax, the capital and largest city, is an important British naval station.
- 9. **Prince Edward Island.**—Prince Edward Island has a fertile soil, and agriculture is the leading occupation. Charlotte Town is the capital.
- 10. **New Brunswick.**—New Brunswick is noted for its timber forests. Its chief exports are lumber and fish. St. John is the principal city. Frederickton is the capital.
- 11. **Quebec.**—The Province of Quebec is noted for its lumber, its picturesque scenery, and severe climate.

Montreal, the chief city, and, after Chicago and Buffalo, the largest in the St. Lawrence basin, has an extensive commerce, and exports a large amount of grain to Europe. Quebec, the capital, is the second city in population, and has a large maritime commerce.

12. **Ontario.**—Ontario produces a great amount of grain, lumber, petroleum, and salt. Toronto, the capital and largest city, has a fine harbor and a large lake trade.

13. Manitoba.—Manitoba is noted for the production of wheat. Winnipeg, on Red River of the North, is the capital and chief town. Branches of the Canadian Pacific connect it with the railway system of the United States.

Saskatchawan River, and the large lakes and rivers with which it is connected, furnish more than 2000 miles of inland navigation.

14. **British Columbia.**—British Columbia abounds in salmon, timber, gold, and coal. Vancouver and New Westminster are important towns. Esquimalt is a strongly fortified naval station. Victoria is the capital.

British Columbia is connected with the eastern provinces of the Dominion by the Canadian Pacific railway, a grand transcontinental line about three thousand miles long, from Montreal to Vancouver on the Pacific Ocean.

- 15. Districts and Territories. Keewatin, an adjunct of Manitoba, Athabasca, Alberta, Saskatchawan, and Assiniboia are called Districts, and in part correspond to the territories of the United States. The last four have a common capital, Regina. The number of inhabitants is small, but is gradually increasing by emigration. The territories are cold and barren regions inhabited by a few Indians and Esquimaux.
- 16. **Newfoundland.**—Newfoundland is a rocky island, with bold, broken coasts. The fisheries are the chief source of support to the inhabitants. Hardy vegetables, as potatoes, cabbages, and turnips grow to perfection. The chief exports are cod-fish, seal-skins, oils, and copper ore.

The fish are caught near the coasts, and in broad, shallow regions in the sea, called "The Banks." The Banks are almost constantly covered with dense fogs.

St. Johns is the capital and chief town. Its permanent population is about 25,000.

Labrador is a name applied to the peninsula between Hudson Bay and the Atlantic. The eastern shore belongs to Newfoundland. Its fisheries find employment for about 1000 small vessels and 30,000 men.

Questions (1.)—1. What does British America comprise? What are its chief divisions?—2. What is the area of the Dominion of Canada? Its population?—3. Describe the government.—4. The climate.—5. The surface.—6. What is the chief commercial water-rout?—7. With what countries is the principal trade of the provinces? What are the chief exports?—8. What is said of Nova Scotia? Italifax?—9. Of Prince Edward Island? What is the capital?—10. For what is New Brunswick noted? What are its chief exports? What is the principal city? The capital?—11. For what is the Province of Quebec noted? Montreal? The city of Quebec?—12. What are the productions of Ontario? For what is Toronto noted?—13. What is said of Manitoba? What is the capital?—14. In what does British Columbia abound? What important town? The capital?—15. What is said of the Districts? Of the Territories?—16. What is Newfoundland? What is the character of the coast? What is the principal business? The chief exports? The capital?

(II.)—I. What other colonies has British America?—2. What is the Dominion of Canada? Of what does it consist? What large island is not included in the confederation?—6. What is said of the rapids and talls in the rivers of this route? Describe the principal trunk lines of railway. What is the channel of trade in the winter?—18. What is said of the Red River of the North?—14. With what states are the chief commercial interests of British Columbia? How is British Columbia connected with the eastern provinces?—16. Where are the fishing-grounds of Newfoundland? What is said of the fogs? Of the population of St. Johns? To what province does the east coast of Labrador belong? What is said of its fisheries?

MEXICO; CENTRAL AMERICA; WEST INDIES.

[For Sections LXX. and LXXI., see page 73.]

LXXII.

MEXICO: DESCRIPTION.

1. Area and Population.— The area of Mexico is about one eighth less than that of all the United States east of the Mississippi. The population is about 11,500,000.

2. Surface.—The great plateau of North America covers most of the country, the highest part being near the isthmus of Tehuantepec.

> The plateau is here crossed by a line of thirteen volcanoes, which are among the loftiest in the world; Popocatepetl and Orizaba are over 17,000 feet in elevation, and their tops are covered with

3. Climate.—Mexico has the greatest possible variety of climate: cold on the high moun-

tains, temperate on the plateaus, and hot and moist on the coast.

The plateaus north of the Tropic of Cancer are dry and barren, like those of the United States. Those south of the tropic have four months of tropical rains.

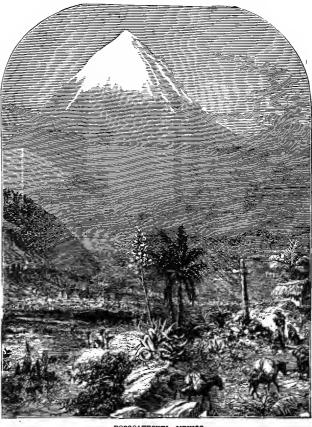
4. Inhabitants.—The people of Mexico consist of Indians, mixed races, and Spanish creoles. Nearly all speak the Spanish language. About four fifths of them reside in the southern half of the country.

The creoles are the white descendants of the early Spanish settlers, and form about one fifth of the population. Nearly two fifths are of pure Indian blood.

5. Commerce.—About one half of the foreign commerce is with the United States, and most of the remainder with England and France.

There are no large navigable rivers. The best harbors are on the coast of the Pacific. Mexico has about 4000 miles of railroad. The natural resources, mineral and vegetable, though of extraordinary variety and value, are as yet but little developed.

- 6. Government.—Mexico, like the United States, is a federal republic. It consists of twenty-seven states, two territories, and a small federal district which contains the capital. It was for three centuries the most important colony of Spain.
 - 7. Mexico, the capital and chief city, is beautifully



POPOCATEPETL, MEXICO.

situated in a fertile plain, 7500 feet above the sea, and surrounded by lofty mountains.

> A railway to Vera Cruz gives the city direct access to the Atlantic, and another through El Paso connects it with the entire railway system of the United States. Trade and general intercourse between the two countries are rapidly increasing.

8. Guadalaxara, Puebla, San Luis Potosi, and Zacatecas are large cities on the table-land; Vera Cruz and Acapulco are the principal ports. The chief exports are silver, hemp, dyewoods, coffee, hides, and vanilla.

> The mines of Mexico were the chief source of the world's supply of silver for nearly three hundred years.

Questions (1.)—1. What is the area of Mexico? The population?-2. What is said of the surface?-3. Of the climate?-4. Where are most

of the inhabitants? Of what do they consist?-5. What is said of the foreign commerce?-6. Describe the government. Of what country was Mexico once a colony? -7. What is the capital and chief city? How situated? What other important cities? What are the principal ports? What are the chief exports?

(II.)-2. By what is the southern part of the plateau crossed?-3. What is the climate of the plateaus north of the Tropic of Cancer? South of it?-4. Who are the creoles?-5. What is said of the rivers, harbors, and railways?-7. What is said of certain railways?-8. Of the silver-mines?

LXXIII.

CENTRAL AMERICA.

1. Central America, as a natural division, is a long isthmus. It includes the smaller isthmuses of Panama in South America and Tehuantepec in Mexico.

It is chiefly important because it contains the principal routes connecting the commerce of the two great oceans.

- 2. As a political division it is of less extent. It includes five independent republics, which are really military despotisms: viz., Guatemala, Honduras, Salvador, Nicaragua, and Costa Rica, together with Belize, or British Honduras, which is a colony of Great Britain.
- 3. These republics are similar to Southern Mexico in surface, climate, productions, population, and social condition. Like Mexico, they were once Spanish possessions.

The Andes Mountains extend the entire length of the isthmus. and connect the mountains of South America and the Sierra Madre. They abound in volcanoes.



- 4. There are several navigable rivers.
 - San Juan River, and Lake Nicaragua, of which it is the outlet, are the chief parts of a proposed ship canal between the oceans. The necessary surveys have been made, and the work of actual construction is now being energetically prosecuted.
- 5. The foreign commerce is limited, and is mostly with England. Coffee, rubber, indigo, bananas, cabinet-woods, dye-woods, and hides are the chief exports.
- 6. The capitals of the several republics are New Guatemala, the largest and finest city of Central America, San Salvador, Tegucigalpa, Managua, and San José.

Questions (I.)—1. What is Central America? What does it include?—2. What does it include as a political division? Name the republics.—3. In what are they similar to Mexico?—4. What is said of the rivers?—5. Of the foreign commerce? Which are the most important exports?—6. Name the capitals of the five republics.

(II.)—1. Why is Central America important?—3. What are its principal mountains? What is said of them?—4. Why is the San Juan River important?

LXXIV.

THE WEST INDIES.

1. **Situation.**—The West Indian Archipelago extends from Florida to South America.

The islands are the summits of mountain ranges which are partly under the sea, and parallel to the great chains of the western continents.

- 2. Area.—The land surface of the archipelago is about equal to that of New York and Pennsylvania.
- 3. **Divisions.**—The Bahamas, the Greater Antilles, and the Lesser Antilles are the three principal divisions.

The Bahamas are low coral islands. One of them, San Salvador, is said to be the first land discovered by Columbus in 1492.

The Greater Antilles have forest-clad mountains and a fertile soil. The Lesser Antilles include all the islands between Porto Rico and South America; several of them contain lofty volcanoes.

- 4. Climate.—All these islands, except a portion of the Bahamas, are in the Torrid Zone. The intense heat of the tropical climate is modified by the ocean and the trade-winds.
- 5. **Productions.**—The principal exports are sugar, coffee, cotton, tobacco, and tropical fruits. Much of the fruit comes from Cuba, which also produces more canesugar than any other country in the world.
- 6. Ownership.—Cuba and Porto Rico are colonies of Spain; Jamaica, the Bahamas, and most of the Lesser Antilles belong to Great Britain; the rest to France and other European countries. Hayti was once divided between France and Spain; it now consists of two independent negro republics—Hayti and San Domingo.
- 7. **Population.**—The total population of the West Indies is about equal to that of the State of New York, the greater part being negroes.
- 8. The three largest cities, Havana, Matanzas, and Santiago de Cuba, are all in Cuba. Havana, the capital of Cuba, is larger than any other city in the West Indies.

Questions (1.)—1. Where is the West Indian Archipelago?—2. What is its area?

—3. Name its principal divisions.—4. In what zone are they? What is said of the climate?—5. What are the principal exports? For what is Cuba noted?—6. To what countries do the West Indies belong? To what two countries did Hayti once belong? Of what does it now consist?—7. What is said of the population of the West Indies?—8. Where are the three largest cities? Name them. What is said of Hayana?

(II.)—1. What are the islands of the West Indian Archipelago?—3. What is said of the Bahamas? Of San Salvador? Of the Greater Antilles? Of the Lesser Antilles?

LXX.

OUESTIONS ON THE MAP.

Mexico.—What country north of Mexico? What country southeast? What gulf in the northwest? What peninsula? What gulf east? What bay? What peninsula in the southeast? What isthmus in the southern part of Mexico? What gulf? What mountain chain extends through Mexico? What river forms part of the northeast boundary? What city is the capital? Name the seaports of the eastern coast. Of the Pacific coast. What city near the mouth of the Rio Grande? What city southeast of Mexico? What three northwest? What two in the northern part of Mexico?

Central America.—Name the divisions of Central America. Which is farthest south? Farthest north? What British colony northeast of Guatemala? What is the capital? What bay north of Honduras? What name is given to the eastern coast of Nicaragua? What two lakes in Nicaragua? What is the outlet of Lake Nicaragua? Name

the capital of each state.

West Indies.—What are the three principal divisions of the West Indies? (Greater Antilles, Lesser Antilles, and the Bahamas.) Name the four Greater Antilles. Which is the largest group of the Lesser Antilles? What group near the coast of South America? What small group east of Porto Rico? What islands north of Cuba? What town is their capital? On what island? What city is the capital of Cuba? What city east of Havana? On the southern coast? What strait between Cuba and Florida? Between Cuba and Yucatan? Cuba and Hayti? What two countries in Hayti? Name their capitals. What strait separates

Hayti from Porto Rico? What is the capital of Porto Rico? What island nearly west of Hayti? Its capital? What other city in Jamaica?

LXXI. REVIEW EXERCISES.

Countries.	Area in Sq. Miles.	Population.	Countries.	Area in Sq. Miles.	Population.
Mexico	751,584	11,395,712	Nicaragua	47,859	312,845
Guatemala	48,303	1,460,017	Costa Rica	20,877	214,264
Salvador	8,135	663,613	Belize (Colony)	8,292	27,668
Honduras	46,264	331,917	The West Indies	94,398	5,488,400

Countries.—Where is it? How bounded? What is the capital?— Mexico? Belize, or British Honduras? Guatemala? Honduras? Salvador? Nicaragua? Costa Rica? San Domingo? Hayti?

Islands.—Where situated?—The Great Antilles? Cuba? Hayti? Porto Rico? Jamaica? The Bahamas? The Lesser Antilles? Virgin Islands? Caribbee Islands? Venezuelan Islands?

Gulfs and Bays.—Where is it?—California? Mexico? Campeachy? Honduras? Tehuantepec?

Straits.—Between what lands? What waters does it connect?—Yucatan? Florida? Windward? Mona?

Cities and Towns.—In what part of the state? How situated?— MEXICO? Leon? Guadalaxara? Puebla? Guanaxuato? Vera Cruz? Tampico? Matamoras? Guaymas? Acapulco? New Guatemala? San Salvador? Tegucigalpa? Managua? San José? Havana? Santiago de Cuba? Matanzas? Port au Prince? San Domin-Go? Kingston? Spanish Town? San Juan? Nassau? Belize?





PHYSICAL SOUTH AMERICA.

LXXV.

QUESTIONS ON THE MAP.

Through what part of South America does the Equator pass? In what zone is the greater part of the continent? What tropic crosses it? What cape at its northern extremity? Its eastern extremity? Southern? Western?

Along which coast is the belt of highest mountains and narrow plateaus? What name is given to the broadest part of the plateau of the Andes? What lakes in it? What broad plateau in the eastern part of the continent? What mountain ranges in this plateau? What smaller plateau in the north? What mountains are in the plateau of Guiana? In what part of South America are the volcanoes?

What name is given to the northern part of the Great Central Plain? With what are they covered? What river drains the llanos? What name is given to the central part of the Great Plain? With what are they covered? What river drains the selvas? What island at its mouth? What river east of Joannes Island? What name is given to the southern part of the Great Plain? What river drains a large part of the pampas?

What branch of the Amazon is connected with the Orinoco? What branches drain the plateau of Brazil? What branch of the Para? What river drains the eastern part? What two the southern part? Which of these is the main river? What name is given to the forest region

between the Paraguay and the Madeira? To the plain between the Matto Grosso and the pampas? Where is the rainless coast? How long is it?

What metals are obtained from the Andes? What two valuable minerals from the plateau of Brazil? How many principal diamond districts? What valuable woods are obtained from the forests of the Amazon and its branches? What gum? What vegetable productions from the northern coast? From the eastern coast? What grain from the southwestern coast? What animal products from the pampas and Southern Brazil? What valuable manure from the rainless coast? From what islands is it obtained?

Note.—It will assist to memorize the physical maps of both the American continents to note the following points of similarity:

Shape of continents. Position of the three coast lines. Volcanoes on the west.

Rocky and Nevada Mountains. Appalachian Mountains. Brazilian Mountains.

Great Basin.

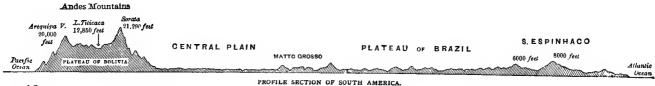
Appalachian Mountains. Western Plateau Belt.
Brazilian Mountains. Andes Plateau Belt.
Great Salt Lake. Labrador.

Plateau of Bolivia, Lake Titicaca. Plateau of Guiana.

Eastern Highland. Central Plain. Arctic Plain. Great Lakes. Southern Plain. Plateau of Brazil. Central Plain. Llanos.* Selvas.† Pampas.‡

Mackenzie River. Nelson. St. Lawrence. Mississippi. Magdalena. Orinoco. Amazon. La Plata.

^{*} Llanos, a Spanish word meaning plains. † Selvas, from a Latin word meaning woods. ‡ Pampas, an Indian word meaning plains. El Gran Chaco, means the great hunting-ground.



DESCRIPTION.

LXXVI.

OUTLINE, SURFACE, ETC.

1. **Outline.**—South America is nearly a right-angled triangle, of which the Pacific coast is the longest side. It is nearly twice the size of the United States, and has a population of about 33,300,000.

Its coasts are unbroken by great gulfs or by enclosed seas.

2. **Surface.**—The surface of South America is naturally divided into four parts—the Andean plateau on the west, the plateaus of Brazil and Guiana on the east, and the Great Central Plain. The Andes Mountains stretch along the entire western coast, generally in parallel chains. Between them is a belt of plateaus, the broadest and loftiest being that of Bolivia.

These gigantic border walls of the plateaus are the loftiest ranges in America, and are exceeded in height only by the great chains of Central Asia. They are highest in the northern portion of the table-land of Bolivia, where the loftiest peaks reach an elevation of 25,000 feet. They are unbroken, except at the Isthmus of Panama, where the western chain subsides into low hills, and towards the southern extremity of the continent, where the mountainous coast becomes a line of rocky islands. The Andes contain several groups of lofty volcanoes.

3. The Great Central Plain extends along the whole eastern base of the Andes.

This plain extends eastwardly to the shores of the Atlantic, except where interrupted by the low mountains and plateaus of Guiana and Brazil.

Three great rivers, the Orinoco, the Amazon, and the La Plata, with their numerous branches, drain this plain and the mountain slopes which surround it.

The remarkable rain-fall of this region is due to the tropical rainbelt and the trade-winds which sweep westwardly from the Atlantic and across the continent.

4. The northern part of the Great Central Plain, the llanos of the Orinoco, is treeless and very flat. It is about four times the size of Ohio.

At the close of the tropical rainy season it is a vast meadow, and is called by the inhabitants the "Sea of Grass."

It supports millions of cattle and horses. Before the end of the dry season it has become a scorched and arid desert, swept by hot winds that whirl the dry soil into the air in dense clouds of dust. During the extreme drought the horses and cattle are driven to the foot of the mountains, and the great reptiles with which the plain abounds bury themselves in the mud of the drying pools, and await in a torpid state the return of the tropical rains.

5. The central part, the selvas of the Amazon, is by far the largest.

It is nearly covered with a dense forest of flowering trees, interwoven with gigantic vines, and alive with birds and insects of brilliant colors, and with millions of monkeys and other animals of the Torrid Zone; it is almost unoccupied by civilized man, and can be traversed only by means of the rivers. This great forest, the largest in the world, also spreads far up the sides of the mountains by which the plains are surrounded.



MONKEYS AND CROCODILE.

- 6. The southern part, the pampas of the La Plata, is more than three times as large as the llanos.
 - It is similar to the llanos in many respects, but is far colder towards the south. It supports vast herds of cattle and millions of sheep and horses. These animals constitute the chief wealth of the inhabitants of the llanos and the pampas, and determine their principal occupations and exports.
- 7. Climate.—The greater part of South America lies within the tropics, where its broad plains have a hot and moist, and therefore sickly climate.

The great moisture is caused not only by the trade-winds and



About one half of the western coast is a dry desert.

The trade-winds from the east, in crossing the Andes south of the Equator, become extremely dry, and, passing down to the Pacific, cause a rainless coast nearly two thousand miles long. A large district of the high plateau of Bolivia is called "the Despoblado," or "the Uninhabited," from the dryness and severity of its climate.

8. **Vegetation.**—The richness and variety of the tropical vegetation are indescribable. The dense forests of the plains and mountains abound in India-rubber and palm trees, and in rose wood, mahogany, and dye-woods. Other products, such as coffee, cocoa, indigo, tapioca, cotton, and sugar, are limited only by the amount of labor and cultivation bestowed upon them.

9. Animals.—Among the remarkable animals are the llama, a beast of burden, and the alpaca of the Andes; they are something like small camels. Besides these are the puma, the jaguar, and the monkey, the boa, the condor, the nandu, or American ostrich, the penguin, and the humming-bird. Insects are more numerous and brilliant than in any other continent. Horses, cattle, and sheep were introduced from Europe.

Questions (I.)—1. What is the shape of South America? Its area? Population?—2. Into how many parts is its surface divided? What are they? What is said of the Andes Mountains? What is between them?—3. What is said of the Great Central Plain? How is this plain drained?—4. What is the character of the northern part of the Great Central Plain? What is it called? What is the meaning of llanos? What is its area?—5. Which is the largest part? What is the central part called? What is the meaning of selvas?—6. What is the area of the southern part? What is it called? What is the meaning of pampas?—7. What is the climate of the greater part of South America? Of the table-lands of the Andes? Of the southern part of the continent? Of the western coast?—8. What is said of the vegetation? In what do the forests abound? What is said of other products?—9. Which are the most remarkable animals? What is said of the insects? Of the horses, cattle, and sheep?

(II.)—1. What is the character of the coasts of South America?—2. What is said of the Andes Mountains? Where are they highest? How high are the highest peaks? Where are they broken? What do they contain?—3. How far does the Great Central Plain extend towards the east? To what causes is the rain-fall due?—4. What is the condition of the northern part of the plain at the close of the rainy season? What does it support? What is its condition before the end of the dry season? What is done with the horses and cattle during the drought?—5. Describe the central part of the plain? What is the extent of the great forest?—6. To what is the southern part of the plain similar? What does it support? What is said of the animals of the llanos and the pampas?—7. What is the cause of the moist climate of the plains? What do the table-lands of the Andes contain? Why? What is the cause of the rains west of the Patagonian Andes? Of the dryness east of these mountains? What is the condition of these plains farther to the north? What is the cause of the extreme dryness of so large a part of the Pacific coast of South America? What name has been given to a part of the plateau of Bolivia?

tropical rains, but by the evaporation from the large amount of river surface and from the immense area covered by vegeta-

The high and cool table-lands of the Andes are noted for their healthful climate.

Partly for this reason, they contain a large part of the civilized inhabitants of the continent, and a remarkable line of elevated capital cities, which are from one to two miles above the level of the ocean.

The extreme southern part of the continent, west of the Andes, is shrouded in clouds and drenched with rains.

These rains are caused by the counter trade-winds of the South Pacific. The arid plains east of the Patagonian Andes are swept by violent cold winds from the icy summits of the mountains. Farther to the north these plains are warmer, but their streams dry up or end in salt lakes instead of reaching the ocean.

LXXVII.

OUESTIONS ON THE MAP.

General.—What countries of South America border on the Caribbean Sea? On the Atlantic Ocean? On the Pacific? Through what countries do the Andes extend? What countries are drained by the Orinoco and its branches? By the Amazon? By the La Plata? What countries are crossed by the Equator? By the Tropic of Capricorn?

Brazil.—What countries border on Brazil? Which country of South America does not border on it? What river drains the northern part of Brazil? Which is its chief northern branch? Its chief southern branch? What island just south of the Equator? Between what two rivers? What mountains near the northern boundary? What mountain chains near the eastern coast? What river breaks through the Serro Espinhaco Mountains? What branches of the La Plata rise in Brazil? What city is the capital? What cape is near it? What city south of Cape St. Roque? On the Para? Between Para and Pernambuco? Between Pernambuco and Rio Janeiro? On what bay?

Guiana.—How many divisions in Guiana? To whom do they belong? What is the capital of each?

Venezuela.—What countries border on Venezuela? What sea on the north? What lake and what gulf in Venezuela? What large river? What island near its mouth? What city is the capital? What town is its port? What other port on the coast? What town on the Orinoco?

Colombia.—What countries border on Colombia? What cape at its northern extremity? What waters? Which is its chief river? What city near its mouth? What city is the capital? What city in the southwest? What isthmus in Colombia? What two ports on it? By what railroad are they connected? (See small map.)

Ecuador.—What countries border on Ecuador? What gulf on its shores? What volcanoes are in Ecuador? What city is the capital? How situated? What city is its port?

Peru.—What countries border on Peru? What lake partly in it? What cape in the northwest? What islands near Cape Blanco? What city is the capital? What city is the port of Lima? What city northeast of Lima? What city in the southwest? What city north of Arequipa?

Bolivia.—What countries border on Bolivia? What mountain near Lake Titicaca? What city is the capital? What other cities in Bolivia?

Chili.—What countries border on Chili? What country is partly included in the southern portion of Chili? (Patagonia.) To what country does the rest of Patagonia belong? What large island belongs to Chili? What small islands west? For what is one of these islands famous? (For having been the solitary residence of Alexander Selkirk, whose story was afterwards written as Robinson Crusoe.) What desert west of the Andes? In what part of Chili is the Desert of Atacama? What group of islands south of Patagonia? What group east? What cape south of Tierra del Fuego? What city is the capital

of Chili? What large city is its port? What port north of Valparaiso?

Argentine Republic.—What countries border on the Argentine Republic? What rivers form parts of its boundary? What city is the capital? What city near the centre? North of Cordova? Southeast of Cordova? Near the Andes?

Uruguay.—What countries border on it? What rivers? What city is the capital?

Paraguay.—What countries border on it? What rivers form parts of its boundary? What city is the capital?

LXXVIII.

REVIEW EXERCISES.

Countries.—Where is it? How bounded? What is the capital?

Names.	Area in Sq. Miles.	Population.	Names.	Area in Sq. Miles	Population,
Brazil	3,228,452	14,600,000	Ecuador	115,680	1,204,400
British Guiana	88,652	282,066	Peru	439,014	2,980,000
Dutch Guiana	49,848	66,037	Bolivia	515,156	1,434,800
French Guiana	30,465	25,797	Chili	299,626	3,165,300
Venezuela	403,067	2,238,900	Argentine Repub.	1,077,032	3,203,700
Colombia	464,537	3,321,052	Uruguay	68,999	711,700
	,		Paraguay	97,726	330,000

Cities and Towns.—In what part of the country? How situated?—CARACAS? La Guayra? Maracaybo? Angostura? Bogota? Popayan? Cartagena? Panama? Colon? Quito? Guayaquil? Lima? Callao? Pasco? Cuzco? Arequipa? Sucre? La Paz? Cochabamba? Potosi? Santiago? Valparaiso? Coquimbo? Buenos Ayres? Rosario? Mendoza? Cordova? Tucuman? Montevideo? Asuncion? Rio Janeiro? Bahia? Pernambuco? Maranham? Para? Santos? Georgetown? Paramaribo? Cayenne?

Islands.—Where situated?—Trinidad? Joannes? Tierra del Fuego? Falkland? Chiloe? Juan Fernandez? Lobos Is.

Capes.—From what coast does it project?—Gallinas? St. Roque? Frio? Horn? Blanco?

Mountains. — Where are they? — Andes? Pacaraima? Serro Espinhaco? Cotopaxi (v.)? Chimborazo (v.)? Sorata?

Seas, Gulfs, and Bays.—Where is it?—Caribbean? Darien? Venezuela? All Saints? Guayaquil? Panama?

Rivers.—Where does it rise? In what direction does it flow? Through what countries? Into what body of water?—Magdalena? Orinoco? Amazon? Negro? Para? Madeira? San Francisco? La Plata? Uruguay? Parana? Paraguay?

Lakes.—Where situated? What outlet?—Maracaybo? Titicaca?

POLITICAL SOUTH AMERICA.

LXXIX.

DESCRIPTION.

1. South America, like the northern continent, was settled and occupied by emigrants from Europe.

Almost all of the civilized people are found in a broad band which surrounds the continent, and crosses its narrow southern part from Santiago to Buenos Ayres. The large cities of the northern and western countries are in the high and cool table-lands; those of the eastern are sea ports of the Atlantic.

There are millions of Indians, the greater part of whom are half-civilized, the rest of them being savages.

2. South America has had a comparatively limited commerce. It is now rapidly increasing, especially in Brazil, the Argentine Republic, and Chili.

The tropical climate and frequent civil wars have tended to repress commercial enterprise, and the grandest system of navigable rivers on the globe is yet but little used. There are about 17,000 miles of railway; chiefly in Brazil, the Argentine Republic, Chili, and Peru. There are no good common roads.



The Panama Railroad crosses the isthmus. It is the most important railway in South America, being the shortest trade route between the Atlantic and the Pacific.

- 3. The countries of South America may be considered under three divisions: 1st, Portuguese South America, or the Republic of Brazil; 2d, the Guianas, or European colonies; and, 3d, the nine Spanish Republics.
- 4. Portuguese South America.—Brazil is the largest and most important country of South America.
 - It comprises more than two fifths of the continent, and is about the size of the United States. It was once a colony of Portugal, and Portuguese is the language of the civilized inhabitants.
 - The population is mostly on or near the southeastern coast. The people are of three races-whites, Indians, and negroes, a large majority being of mixed races. Nearly all the negroes of South America are in Brazil and the Guianas.
 - Brazil has about 6000 miles of railroad. The Amazon and its tributaries furnish about 50,000 miles of navigable waters, as yet but little used. An ocean telegraph connects Brazil with Portugal, and another with the United States by way of the West Indies.

Other important ports of Brazil are Bahia, the second city, Pernambuco, Maranham, Santos, and Para.

- 5. The Guianas are colonies of Great Britain, France, and the Netherlands. The chief exports are indigo, cocoa, sugar, coffee, and other tropical productions. The ports of Georgetown, Cayenne, and Paramaribo are the capitals and the chief centres of commerce.
- 6. Spanish South America comprises nine independent republics, viz., Venezuela, Colombia, Ecuador, Peru, Bolivia, Chili, Argentine Republic, Uruguay, and Paraguay. Each republic consists of a number of states under a general government, as in Mexico.

The Andean portion is so rugged that the back of an Indian or of a sure-footed mule is almost the only means of travel and traffic over the rude and dangerous mountain roads. The Argentine Republic has about 7000 miles of railway, Chili 1800, Peru 1700, and Bolivia none. The others have from 50 to 300 each. These republics were once colonies of Spain. The language spoken by the civilized inhabitants is Spanish.

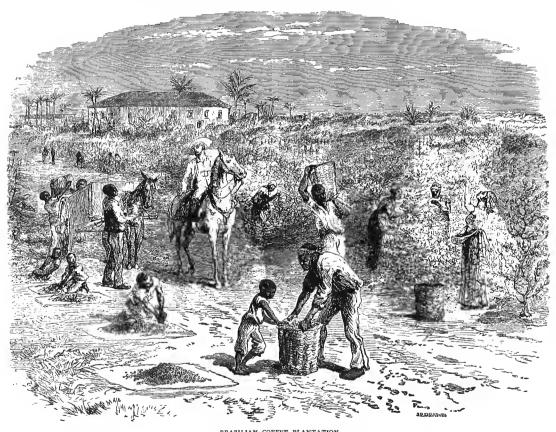
In all the republics of Spanish America, from Mexico to Chili, the Spanish creoles are greatly outnumbered by the Indians and mixed races. This fact has an important influence upon the enterprise, commerce, and social and political condition of these countries.

- 7. **Venezuela.**—Venezuela exports coffee, cocoa, and other tropical products from La Guayra and Maracaybo on the Caribbean Sea, and the cattle products of the llanos from Angostura on the Orinoco. Caracas, the capital and largest city, is 3000 feet above the sea.
- 8. Colombia. Colombia is the most important of the five northern republics.

This is due to its geographical position. It contains the Isthmus of Panama, which is the most direct route for the rapidly increasing

commerce between the countries bordering the two great oceans. A short railroad from Panama to Aspinwall is now the route of this commerce. A great canal for the largest sea-going vessels is projected across the isthmus between these cities. The work of excavation was carried on for several years under French direction. In 1889, however, after an expenditure of nearly \$200,000,000, all work was suspended owing to lack of funds. Magdalena River is the chief artery of internal commerce.

The chief exports are Peruvian bark, from which qui-



BRAZILIAN COFFEE PLANTATION

Brazil furnishes the greater part of the coffee used in the world, besides cotton, sugar, hides, dye-woods, Indiarubber, and diamonds; more than half of the coffee, the leading article of export, goes to the United States. The greater part of the entire South American trade of the United States is with Brazil. Rio Janeiro, sometimes called Rio, is the capital and largest city of Brazil, and is the most important port in the Southern Hemisphere. nine is extracted, coffee, and tobacco. Bogota, the capital and largest city, is nearly 9000 feet above the sea Popayan is the second city. Cartagena, Savanilla, Barranquilla, Panama, and Colon, are the chief ports.

9. **Ecuador.**—The exports of Ecuador are cocoa, Indiarubber, Peruvian bark, and vegetable ivory nuts. Guayaquil is the chief port. Quito is the capital and largest city.



INDIA - RUBBER TREES

10. **Peru.** — The chief exports are guano and silver. Lima, the capital, is the largest city. Its sea-port is Callao.

Pasco, 13,000 feet above the sea, the most elevated city in the world, is surrounded with silver-mines. Cuzco and Arequipa are large cities. Lake Titicaca, on the borders of Bolivia, 13,000 feet above the sea, is the highest large mountain lake in the world. Its waters flow into Lake Aullagas in Bolivia.

One of the Peruvian railways reaches an elevation of nearly 16,000 feet. This is now the highest point in the world where a piston moves.

- 11. **Bolivia.**—Bolivia, having neither sea-coast nor railways, has but little commerce. Peruvian bark and silver-ore are exported through Buenos Ayres. The large cities Sucre, Potosi, Cochabamba, and La Paz, the capital, are all on the plateau.
- 12. Chili.—Chili is one of the most enterprising countries of South America, and has a large proportion of European inhabitants. It has a coast-line of about 2500 miles. The exports are guano, saltpetre, copper-ore, silver, and wheat.

Guano is obtained from the Lobos Islands and other parts of the rainless coast; saltpetre from the southern part of the same region.

Santiago, the capital, is the largest city. Valparaiso, the second city, is the largest sea-port on the Pacific coast of America, excepting San Francisco.

Patagonia and Tierra del Fuego form the southern part of South America. The western portion of this extensive region belongs to Chili, the eastern to the Argentine Republic. The native inhabitants are savage tribes.

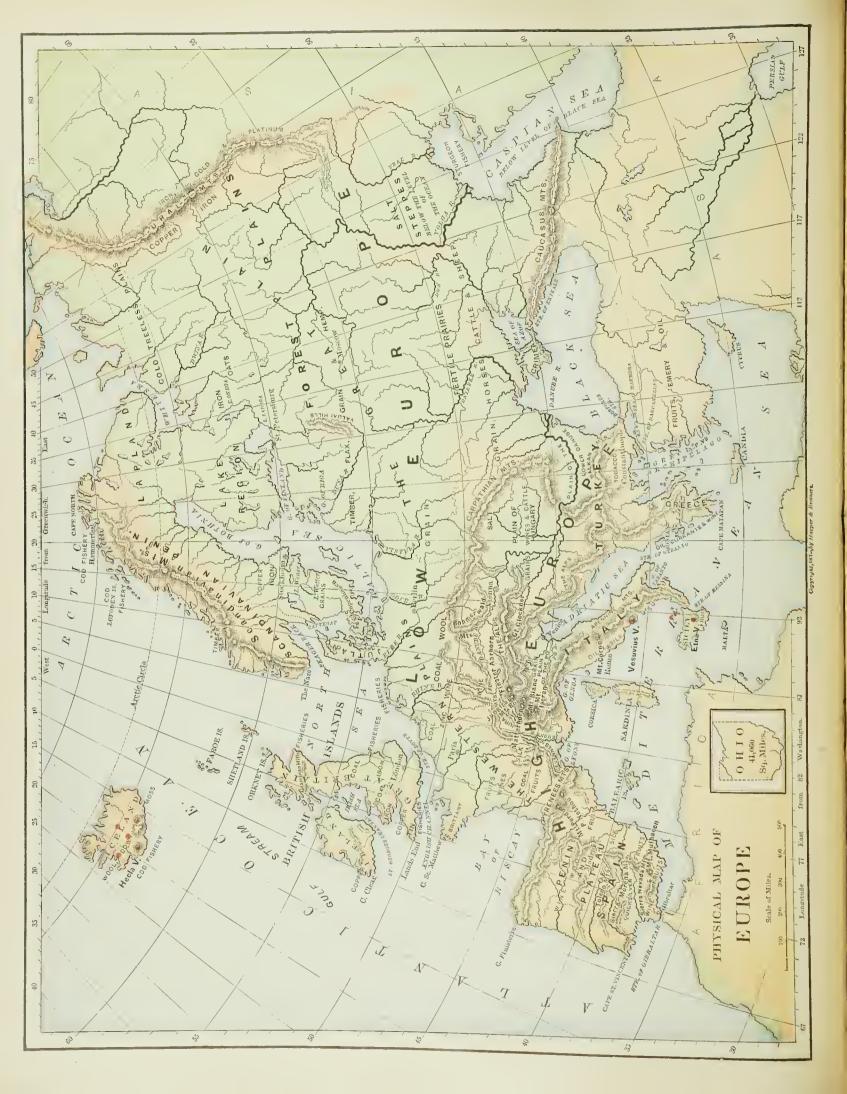
13. **The Argentine Republic.**—The Argentine Republic is a rival of Chili in enterprise.

Emigration from Southern Europe, and commerce, are increasing. Education is advancing more rapidly than in any other country in South America. The chief exports are wool, sheep-skins, hides, tallow, and other cattle products. Two thirds of the hides are sent to the United States. The capital, Buenos Ayres, is the largest city in South America, and a great sea-port. Other important cities, Rosario, Mendoza, Cordova, Tucuman, and Corrientes, are on the great trade-routes to Chili, Bolivia, and Paraguay.

- 14. **Uruguay.**—Uruguay is similar in its leading exports to the Argentine Republic. Montevideo, the capital, has a large trade in cattle products.
- 15. **Paraguay.**—Paraguay is the weakest of the nine republics, and, like Bolivia, having no sea-coast, has but little commerce. Asuncion is the capital.

Questions (I.)-1. By whom was South America settled?-2. What is said of its commerce? Of the Panama Railroad?-3. How may the countries of South America be considered? What are the divisions?—4. Which is the largest? What are the principal productions of Brazil? What is the extent of its crade with the United States? What city is the capital? For what is it noted? What other important ports?-5. To what countries do the Guianas belong? What are the chief exports? What cities are the capitals and centres of commerce?-6. What does Spanish South America comprise? Name them. Of what does each republic consist? What is said of the inhabitants of the republics of Spanish America? Why is this an important fact?-7. What are the exports of Venezuela? What city is the capital? What is said of it?-8. Of Colombia? What are the chief exports? What city is the capital? What is said of it? Of Popayan? What are the chief ports?-9. What are the exports of Ecuador? The chief port? What is the capital?-10. What are the chief exports of Peru? What city is the capital? What is said of it? What is its sea-port?-11. What is said of the commerce of Bolivia? What are the exports? Which are the large cities? Where are they?-12. For what is Chili noted? What are the chief exports? What is the capital and largest city? For what is Valparaiso noted?-13. What is said of the Argentine Republic? Of emigration and commerce? Of education? What are the chief exports? Where are most of the hides sent? What city is the capital? What is said of it? Which are the other important cities? Where are they?-14. What are the exports of Uruguay? What is the capital? What is said of it?-15. Of Paraguay? What is the capital?

(II.)—1. In what part of South America are most of the civilized inhabitants? Where are the large cities? What is said of the Indians?—2. Why has South America so little commerce? What is said of the roads?—4. What is said of Brazil? Where is most of the population? Of what does it consist? Where are most of the negroes? What is said of the railroads of Brazil? Of the Amazon? Of the telegraphs?—6. What is said of the Andean portion of the Spanish Republics? Of what country were these republics once colonies? What is said of the railways? What language is spoken?—8. Why is Colombia the most important of the five northern republics? What commercial route does it contain? What is the present route of this commerce? What other route is being constructed? What is said of it? Of the Magdalena?—10. For what is Pasco noted? Cuzco and Arequipa? Lake Titicaca? Where do its waters flow? What is said of one of the railways?—12. Where is guano obtained? Saltpetre? What country and group of islands form the southern part of South America? To what countries do they belong? What are the native inhabitants?



ain, Ireland, and Iceland.

What mountains form the eastern border of the Great Plain of Europe? The southeastern border? The southwestern? The northwestern? In what peninsula are the Scandinavian Mountains? What hills near the centre of the Great

Plain? What sea borders the Great Plain in the gap between the Ural and Caucasus Mountains? Between the Caucasus and the Carpathian? Between the British Islands and the Scandinavian Mountains? What sea in the western

QUESTIONS ON THE MAP

From what other continent does Europe project? In what arates them? What strait at its entrance? What ocean west of Europe? What ocean north? What is the southwestern part of Europe called? Nearly all the rest of the direction? What continent south of Europe? What sea sepcontinent? In what zone is the greater part of Europe?

mountains connect the Pyrenees with the Balkan? What eastern Turkey? What sea between Turkey and Italy? High Europe.—What three peninsulas project from High Europe? What is the peninsula of Spain sometimes called? Peninsula? In what part of High Europe is it? What Turkey? What mountains in the northern part of the peninsula of Spain? What mountains in Turkey? What mountains in southern Spain? In the Italian peninsula? On the northeastern border of High Europe? What smaller (The Iberian Peninsula.) What plateau in the Iberian Turkey? What archipelago between Greece and southpeninsula nearest to Asia? What one between Spain and peninsula in the southwestern part of the peninsula of

Asia and the Turkish What small sea between peninsula?

rope? What part of the treeless? What part is gions? The salt steppes? Where is the lake region? plain constitutes the covered with forests? Where are the prairie re-Low Europe. - What greater part of Low Eu-Great Plain is cold and

into the Black Sea? What sea north of the Black Sea? Sea? What two rivers into the Caspian Sea? What two Sea of Azof? Into the Gulf of Riga? What two rivers flow What peninsula between them? What river flows into the into the Baltic Sea? What two into the North Sea?

of the southern part of the Great Plain? Of the central key? Great Plain? At what mountains do these plains terminate on the southwest? In what island on the west? Through What name is given to the western continuation of the what two plains does the Danube flow? Which of these is not a part of the Great Plain? What other small plain between the Alps and the Apennines?

ern Spain? West of the Rhine? What are the products

Mountains? Near the Carpathian Mountains? In south-

Islands? In the Scandinavian peninsula? In the Ural

part? Of the northern part? Of southern Scandinavia?

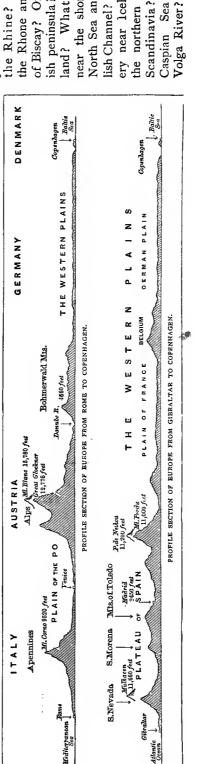
Near the Vistula? Of the plain of Hungary? Of Tur-

Britain and Ireland? North of the peninsula of Spain? between Great Britain and the continent? Between Great The most western? The most southern? What islands point of Italy divides the Mediterranean into two basins? What three large islands west of Europe? What waters What three groups of islands between Great Britain and What large islands in the western basin? What two gulfs southwest of Cape North? What island near the south in the northern part? What river flows into the Gulf of the Lion? Which are the two principal islands of the eastern between Sicily and Italy? At the entrance to the Adriatic basin? What small island south of Sicily? What strait Marmora? Between the Sea of Marmora and the Black What metals and minerals are produced in the British Iceland? What cape is the most northern point of Europe. Sea? Between the Grecian Archipelago and the Sea of Sea? What volcano in Sicily? In Italy? In Iceland?

part of the Great Plain? In the northern part? Name

the northern arm of the Baltic Sea, The eastern arms,

What two lakes are connected with the Gulf of Finland? What straits connect the Baltic and North seas? What. peninsula between them? What river flows into the White Of Greece? Of Sicily? Of western Italy? Of the plain of the Po? On the Rhine? Between the Rhone and the Bay near the shores of the ish Channel? What fishery near 1celand? On of Biscay? Of the Span-North Sea and the Eng-Scandinavia? In the Caspian Sea and the Of Iceland? What industry the northern shores of ish peninsula? DENMARK Ballic Baltic Сорепладен



. О Р ſτÌ YSICAL

DESCRIPTION LXXXI.

1. Outline.—The Continent of Europe is a very large peninsula, and is made up of a group between the Mediterranean Sea and the Arctic Its western half is divided into two of peninsulas. It projects from Asia, and lies Ocean.

Scandinavian in the northwest, and Western Europe in the southgreat peninsulas — the

2. Western Europe is the larger and more important.

west.

are on the north; opposite these are Turkey, Greece, It is itself bordered by smaller peninsulas and islands, Jutland and Brittany and broken by inland seas.

and Italy; the Spanish or Iberian Peninsula forms the southwestern extremity. The peninsular character of Europe opens a very large part of the continent to the waters of the ocean, and gives unequalled facilities for maritime commerce.

3. Islands.—In the Mediterranean Sea are the large islands Candia, Sicily, Sardinia, and Corsica; in the Atlantic Ocean are Great Brit. 4. **Surface.**—Eastern Europe is a plain, and includes the greater part of Low Europe.

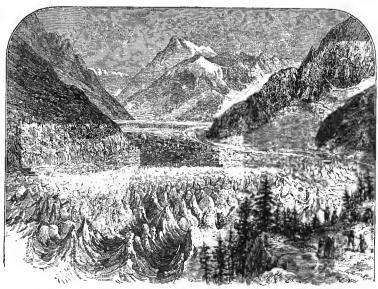
This plain extends from the Arctic Ocean to the Black and Caspian seas, where it unites with the Great Northern Plain of Asia. It is also continued into Great Britain and to the Bay of Biscay in the west, and to the Balkan Mountains in the south.

5. Four important mountain systems partly enclose this great plain—the Scandinavian, the Ural, the Caucasus, and the Carpathian. Four inland seas—viz., the White, the Caspian, the Black, and the North—break into the borders of the plain between the ends of these mountains. Besides these is the Baltic, which is entirely within the plain. These five seas receive large and sluggish rivers, the most important of which diverge from a small central district which contains the Valdai Hills.

Among these rivers are the Dwina, the Ural, the Volga, the Don, the Dnieper, the Elbe, the Vistula, and the Duna.

The northwestern part of the plain contains many lakes; among these are Ladoga and Onega, the largest lakes in Europe.

- 6. These rivers and lakes, and the canals by which they are connected, are the commercial routes of Eastern Europe. The Volga is the chief line of the domestic and the Asiatic trade of the seventy millions of people that inhabit the eastern plain.
- 7. Western Europe includes High Europe, which is a network of mountain chains with enclosed valleys and plains. The largest plateau is in Spain.



ALPINE VALLEY AND GLACIER

8. The Alps, the loftiest mountains in Europe, the Balkan, and the Pyrenees are the principal systems.

Many of the summits of the Alps are covered with perpetual snow, and the valleys between are filled with glaciers.

9. Four navigable rivers—the Po, the Rhone, the Rhine, and the Danube—flow from the heart of High Europe,

and pass through the plains to four seas. The Po is the chief interior water-way of Italy, and the Rhone of France. The Rhine and the Danube are the chief commercial rivers of Western Europe, the latter being the more important.

10. Climate.—Western Europe, especially near the Atlantic Ocean, has a milder climate than other parts of the world in the same latitude.

"Ever-green Ireland" is in the same latitude as cold and barren Labrador; St. Petersburg and Stockholm are on the parallel of Cape Farewell; and the never-frozen port of Hammerfest is as far north as the ice-covered regions of the Arctic Archipelago.

The principal cause of this remarkable climate is the warm southwest or return trade-winds, which bring with them a part of the heat they have acquired in the Torrid Zone. The warm waters of the Gulf Stream are also supposed to reach these coasts and to assist in modifying their climate.

The winter climate of the interior parts of Western Europe also presents remarkable peculiarities. It becomes more severe towards the south; this is in consequence of the great elevation. Some cities in High Europe have much colder winters than other places far north of them near the shores of the ocean.

A similar change takes place towards the east with increasing distance from the ocean. The average number of days during which the Rhine is frozen over during the year is twenty-six; the Weser, which is east of the Rhine, is frozen for thirty days; the Elbe, still further east, for sixty-two; the Oder for seventy; and the Vistula for about eighty days.

11. The climate of the Mediterranean countries is almost tropical.

This is the effect of the general southward slope of the country, the warm winds from the Sahara, the mild waters of the Mediterranean, and the high mountain walls that shut out the cold polar winds. Figs, oranges, sugar-cane, and rice grow in the latitude of New York and Boston. The Spanish plateau has a cold winter and a hot and dry summer.

12. The Great Plain has a varied climate. The winters are intensely cold; in the south the summers are hot.

This winter climate is caused by distance from the warm western ocean, and by the prevalence of the polar winds, that sweep unchecked to the Black Sea and the Caspian.

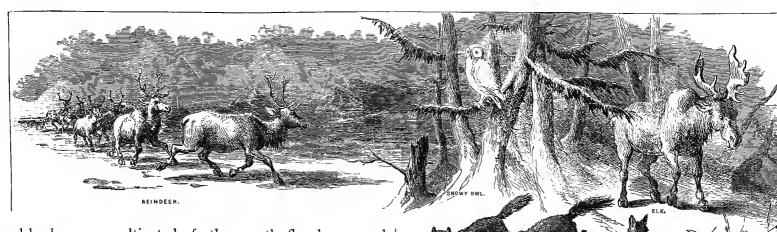
13. **Vegetation and Animals.**—The Great Plain has three belts of vegetable and animal life.

The arctic regions are mossy, treeless swamps, inhabited by reindeer and other arctic animals.

Most of these animals seek the forest regions during the long winters. The rivers are frozen nine months in the year. There are few human inhabitants.

Another wide freeless region stretches across the southern part of the plain. Barren salt plains, called steppes, occupy its eastern portion. In the west are broad prairies, which sustain large numbers of sheep, horses, and cattle, and produce maize and great quantities of wheat.

A vast forest occupies a great part of the middle belt. In its colder regions the hardy grains—rye, oats,



and barley—are cultivated; farther south, flax, hemp, and wheat.

14. The warm countries of the Mediterranean produce the olive, the almond, the orange, besides rice and other grains.

Grains, fruits, and vines are cultivated in the lowlands of the Atlantic coasts and the valleys of High Europe.

As we ascend the mountains of High Europe the chestnut gives place to the oak, then follow pine forests and high pastures, then glaciers and perpetual snow.

- 15. The northwestern coasts of Europe have extensive and valuable fisheries.
- 16. **Minerals.**—The mountains of Europe furnish an abundance of the most useful minerals; among these are coal, iron, lead, tin, zinc, and copper.

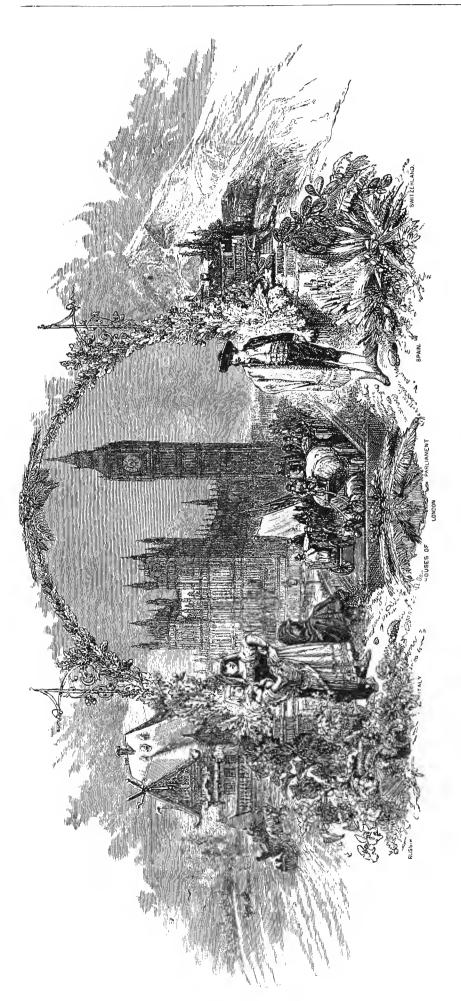
Questions (I.)—1. What is Europe as a physical division? Of what is it made up? From what does it project? Between what waters? How is its western half divided? What one in the northwest? What one in the southwest?-2. Which is the larger and more important of these peninsulas?-3. What large islands in the Mediterranean Sea? In the Atlantic Ocean?-4. What is the character of Eastern Europe? What does it include?-5. How many and what mountain systems partly enclose the plain? How many and what seas break its borders? Between what are they situated? What sea lies entirely in the plain? What do these seas receive from the plain? Where is the lake region? Which are the two largest lakes?-6. What use is made of these rivers and lakes? What river forms the principal commercial route of Eastern Europe ?- 7. What does Western Europe include? Of what does High Europe consist? Which is the only large plateau?—8. Name the chief mountain systems of High Europe. Which are the highest mountains in Europe?-9. What four rivers flow from High Europe? To what? Through what? Of what countries are they the chief water-routes? Which are the chief commercial rivers of Western Europe? Which is the more important?—10. What is the character of the climate of Western Europe?-11. What is the general climate of the Mediterranean countries?-12. What is the climate of the Great Plain?—13. How many belts of vegetable and animal life in the Great Plain? Describe the arctic belt. By what animals inhabited? Describe the southern belt. Where are the salt steppes? The prairies? What do they sustain? What are the vegetable products? Describe the middle belt. What are its products?

—14. What are the vegetable products of the Mediterranean region? Of the Atlantic coasts?—15. Where are the great European fisheries?—16. What are the principal minerals of Europe?

(II.)-2. By what is Western Europe bordered? By what are its shores broken? What two peninsulas on the northern border? What peninsulas opposite them? What peninsula forms the southwestern extremity of Europe? Of what advantage is the peninsular character of Europe?-4. What is the northern limit of the Great Plain? The southern limit? With what other plain is it connected? What western extension has it? What southern extension? -5. Name some of the rivers of Eastern Europe.-8. What is said of the Alps?-10. With what is Ireland contrasted? St. Petersburg and Stockholm? Hammerfest? What are the causes of the mild climate of Western Europe? Describe the peculiarities in the climate of the interior of Western Europe.—11. What are the causes of the tropical climate of the Mediterranean? What contrast with New York and Boston? What is the climate of the Spanish platean? - 12. What are the causes of the varied climate of the Great Plain?-13. What is said of the animals of the Arctic regions? Of the rivers? Of the inhabitants?-14. Of the mountains of High Europe?



Area iu Square Miles.	Population.	Names.	Area in Square Miles.	Population.	Names.	Area iu Square Miles.	Population.
125,598	1,999,176	France (inc. Corsica, Monaco,			Denmark	14,780	2,172,205
178,974	4,774,409	Andorra)			Colonies (inc. So. Greenland)	75,180	126,162
		Algeria and other Dependencies.			German Empire	209,995	49,424,185
		Italy (inc. San Marino)	110,580	80,166,328			29,959,588
		Italian claims in Africa	815,070	5,369,000			5,589,382
9,673,889	383,802,209	Switzerland (inc. L. Constance)			Saxony	5,789	3,500,513
		and Geneva)	16,192	2,983,834	Würtemberg	7,531	2,035,443
80,463	4,033,108	Austro - Hungary (inc. Bosnia.			Baden	5,823	1,656,817
32,834	4,854,032				Hesse		994,614
					Alsace-Lorraine	5,602	1,603,987
			18,576	2,157,477		929,827	5,505,000
		Montenegro	8,506	200,000			
168,569	9,708,122	Turkey in Europe (with Crete and			_ See)	12,742	4,558,095
84,508	4,806,554	Novi Bazar).			Dutch Colonies	773,508	81,912,500
	44.000.000				Luxemburg	990	211,088
852,038	14,620,000	Greece	25,143	2,217,000	Belgium	11,374	6,098,798
		125,598 173,974 2,198,487 6,465,339 9,672,389 9,672,389 30,463 30,463 4,033,103 32,834 4,854,032 0,908,559 17,246,688 168,569 9,708,122 34,508	125,598 1,999,176 4,774,409 4,774,409 4,174,40	125,598	125,598	125,598	125,598



POLITICAL EUROPE.

in Poland? What city is the capital of Russia? On what | situated? — ATHENS? (The Neva.) From what lake does the Neva flow? What city at its mouth? At the mouth of the Of the Volga? Near the centre Between Warsaw and St. Petersburg? of Russia? What three cities on the Volga? What city On the Black Sea? West of Odessa? On the Dnieper? Dwina? Of the Duna? south of Moscow? river is it? Countries.—What country forms the eastern half of Eutries on the Mediterranean Sea? On the Atlantic Ocean?

rope? What countries northwest of Russia? What coun-

OUESTIONS ON THE MAP,

LXXXII

On the North Sea? What two countries have no sea-coast?

On the Black Sea? On the Adriatic?

way and Sweden? In the southern part of Norway? What

port on the Arctic Ocean? What city on the western coast? On the southwestern coast? What city is the cap-

Norway and Sweden.-What mountains between Nor-

ital of Norway? What lakes in Sweden? What city is the

capital of Sweden? What city on the Cattegat? South of Stockholm? North of Stockholm? Northwest of Upsal? Russia,-What countries border Russia on the northwest? On the southwest? What sea between Russia and

REVIEW EXERCISES

Iceland? France? Denmark? Scotland? Ireland?

Which is the most western province of Russia? What city

What four lakes flow into the Gulf of Finland?

Sweden?

Belgrade? Cettigne? Vienna? Berlin? Copenha-GEN? THE HAGUE? BRUSSELS? PARIS? ROME? MA-DRID! LISBON! LONDON! EDINBURGH! DUBLIN! STOCK-HOLM? Gottenburg? Norrkoping? Fahlun? CHRISTIANIA? Bergen? Drontheim? Hammerfest? Sr. Petersburg? Moscow? Warsaw? Odessa? Kishenev? Riga? Saratov? BUCHAREST? Wilna? Kasan? Kiev? Astrakhan? Archangel? CONSTANTINOPLE?

Peninsulas.—From what part of Europe does it project? Turkey? Greece? Crimea? Iutland? Italy? Iberian Peninsula? -Scandinavian Peninsula?

Mountains,—Where are they !-- Ural? Caucasus? Scandinavian? Kiolen? Dovrefield?

Seas and Gulfs.— Where is it?—White? Caspian? tic? Black? Finland? Riga? Bothnia? Azof?

In what direction does it How! Through what countries! Into what body of water? Volga? Don? Dnieper? Rivers.—Where does it rise? -- Dwina ?

Lakes.—Where situated? What outlet?—Onega? Lado-

capital?—Norway? Sweden? Russia? Greece? Turkey? Roumania? Servia? Montenegro? Austria? Germany? Countries.—Where is it? How bounded? What is the The Netherlands? Belgium? Switzerland? Italy? Spain? Portugal? England? Cities and Towns.—In what part of the country? How | ga? Peipus? Ilmen? Wener? Wetter?



DESCRIPTION.

LXXXIV.

GOVERNMENTS AND POPULATION.

1. Governments. — Europe contains four empires, Russia, Turkey, Germany, and Austria; two republics, France and Switzerland; twelve independent kingdoms, Norway, Sweden, Great Britain and Ireland, Spain, Portugal, Italy, Greece, Roumania, Servia, Denmark, Belgium, and the Netherlands; one independent principality, Montenegro, and one independent grand duchy, Luxemburg. Russia and Turkey are absolute, Germany, Austria, and the twelve kingdoms are limited monarchies.

Besides these, there are in the German Empire the kingdoms of Prussia, Saxony, Bavaria, and Würtemberg; in the Austrian Empire, Bohemia, Galicia, Hungary, and Croatia and Slavonia; and in the Turkish Empire the principality of Bulgaria. Andorra in the Pyrenees, and San Marino in Italy, are small but old republics.

2. **Population.**—The total population of Europe is estimated at 360 millions, three fourths of it being in western Europe. It is nearly all Caucasian.

The three chief branches of the Caucasian race in Europe are the Celts in the west, the Teutons from the Alps to Scotland and northern Norway, and the Sclaves in the Great Plain.

The people of the eastern half of Europe belong mostly to the Greek Church; those of the northwestern regions are principally Protestants; nearly all the rest, including more than half the population, are Roman Catholics. Near the Black Sea are several millions of Mohammedans.

- 3. Norway and Sweden. Norway and Sweden occupy the Scandinavian peninsula. Norway is the smaller and more mountainous, and has less than one half as many inhabitants as Sweden. The kingdoms are separate, but the same king rules over both.
- 4. The maritime commerce of Norway is extensive and important. The exports are lumber and fish.
- 5. In Sweden railways and a system of canals from the Baltic to the Cattegat unite the internal with the maritime commerce. The exports are grain, iron, and copper.
- 6. Christiania, the capital of Norway, and Bergen, its largest Atlantic port, have a large trade in lumber and fish. Hammerfest, the most northern town in the world, is dependent upon the cod-fisheries. The Norwegian cod-fisheries are the greatest in the world.

Stockholm, the capital of Sweden, is situated on several small islands. Gottenburg is an important port and manufacturing city. Norrkoping is a grain port.

7. Russia.—The Russian Empire, next to that of Great Britain, is the most extensive dominion in the world. It includes about one half of Europe and more than one third of Asia. The monarch is called the Czar, or emperor. The inhabitants are mostly Sclaves.

[For remainder of Section LXXXIV., see page 90.]

LXXXV.

QUESTIONS ON THE MAP.

England and Wales.—What three countries on the island of Great Britain? What waters between Great Britain and Ireland? England and France? What island in the Irish Sea? What hills between England and Scotland? What mountains in Wales? What bay west of Wales? What two rivers flow into the North Sea? For what is the Thames remarkable? (For the largest maritime commerce in the world.) What river flows into the Bristol Channel? Into the Irish Sea? What city on the Thames? What port on the Humber? What city northwest of Hull? Southwest of York? West of Leeds? Near the mouth of the Mersey? South of Leeds? In the northern part of England? Near the centre? Near the Severn? What two cities east of Liverpool? On the south coast? In the southern part of Wales?

Scotland.—What islands northwest of Scotland? What groups north of Scotland? What hills in Scotland? What peak of the Grampians is the highest in Great Britain? (Ben Nevis, 4370 feet.) What name is given to the bays of the coast of Scotland? (Firths.) Name the five chief firths of Scotland. What firth, hills, and river form the boundary between Scotland and England? What river flows into the Firth of Clyde? What canal in the northern part of Scotland? What three cities on or near the east coast? On or near the Clyde?

Ireland.—What bays on the western coast of Ireland? Which is the largest river? What port in the northern part? In the northeastern?

In the eastern? What city in the southern part? What sea-port near it? What port on Galway Bay? On the Shannon?

Travels.—Through what cities would you pass in travelling by railway from Edinburgh to London by way of Newcastle? Plymouth to Hull by way of Birmingham? Newcastle to Liverpool by way of Leeds?

LXXXVI.

REVIEW EXERCISES.

Cities and Towns.—In what part of the country? How situated?—London? Liverpool? Manchester? Birmingham? Leeds? Sheffield? Bristol? Bradford? Newcastle? Salford? Hull? Portsmouth? York? Plymouth? Merthyr Tydvil? Swansea? Edinburgh? Glasgow? Dundee? Aberdeen? Paisley? Greenock? Dublin? Belfast? Cork? Londonderry? Galway? Limerick?

Islands.—Where situated?—Man? Hebrides? Orkney? Shetland?
Mountains.—Where are they?—Grampian Hills? Cheviot Hills?
Cambrian? Ben Nevis?

Seas, Gulfs, and Bays.—Where is it?—North Sea? Irish Sea? St. Georges Channel? English Channel? North Channel? Strait of Dover? Bristol Channel? Firth of Clyde? Firth of Forth? Solway Firth? Moray? Pentland? Cardigan Bay? Galway? Donegal?

Rivers.—Where does it rise? In what direction does it flow? Into what body of water?—Thames? Severn? Mersey? Clyde? Shannon?

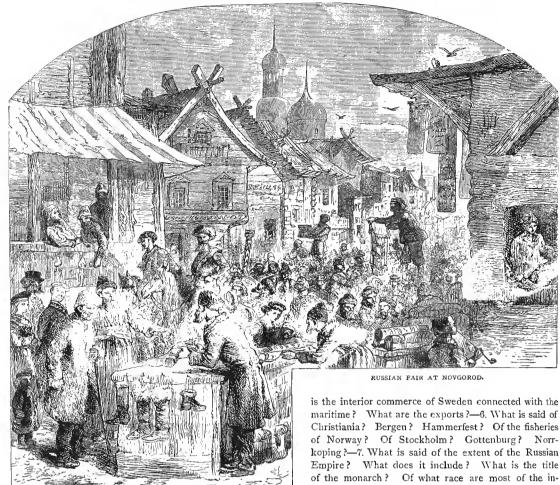


- 8. The exports, in the order of their importance, are grains, flaxseed, lumber, wool, flax, hemp, and cattle. The chief foreign trade is with Great Britain and Germany.
- 9. The principal cities are St. Petersburg, the capital and largest city and greatest commercial depot; Moscow, the ancient capital of Russia; and Warsaw, the chief city of Poland. The last two are manufacturing cities.

Riga and Cronstadt, on the Baltic, export grain, hemp, flax, and lumber; Odessa, on the Black Sea, is a great grain port; Astrakhan, on the Caspian, is noted for its fisheries and its caravan trade with Asia; Archangel, on the White Sea, exports oats, rye, flax, and forest prod-

Questions (I.) -1. How many and what empires in Europe? How many and what re-

publics? How many and what kingdoms? Which are absolute monarchies? Which are limited?-2. What is the population of Europe? In what part is most of it? Of what race ?-- 3. Where are Norway and Sweden? How does Norway compare with Sweden in size? In surface? In population? What political connection have they? -4. What is the commerce of Norway? What are its principal exports?-5. How



maritime? What are the exports?-6. What is said of Christiania? Bergen? Hammerfest? Of the fisheries of Norway? Of Stockholm? Gottenburg? Norrkoping?-7. What is said of the extent of the Russian Empire? What does it include? What is the title of the monarch? Of what race are most of the inhabitants?-8. What are the leading exports? With what countries is most of the foreign trade?-9. For

what is St. Petersburg noted? Moscow? Warsaw? Riga and Cronstadt? Odessa? Astrakhan? Archangel?

(II.)-1. What kingdoms in the German Empire? In the Austrian? What small republic in Spain? What one in Italy? What is said of them?-2. What branches of the Caucasian race in Europe? What religions?

GREAT BRITAIN AND IRELAND.

LXXXVII. DESCRIPTION.

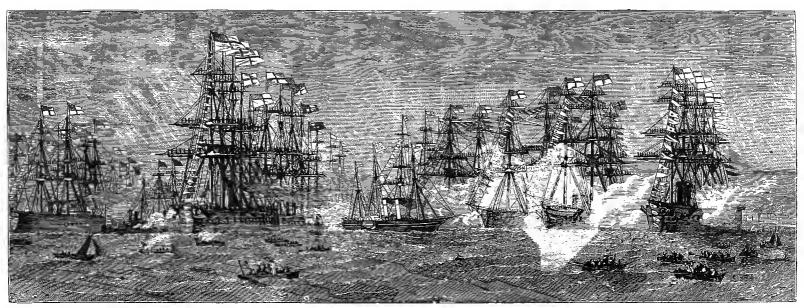
- 1. The United Kingdom of Great Britain and Ireland includes these two great islands and many neighboring small ones; it has also extensive colonial possessions in other parts of the world. The kingdom with its dependencies is generally called the British Empire.
 - The most important colonies are British America, Australia, Tasmania, New Zealand, British India, and Ceylon. Among its other possessions are Gibraltar, Malta, and Cyprus, in the Mediterranean Sea, South Africa, parts of the east and west coasts of Africa, with St. Helena, Mauritius, and other African islands, many of the West India Islands, and parts of Central and South America.
- 2. Occupations.—The chief wealth of Great Britain is in its manufactures, mines, and extensive maritime

- commerce. Agriculture is carried to a high degree of perfection; in Ireland it is the leading occupation.
- 3. Minerals.—Great Britain supplies about one fourth of the coal, iron, salt, and tin used in the world, one eighth of the lead, and same of copper.
- 4. Manufactures.—It surpasses every other country of Europe in the amount and variety of manufactures. The most important are of cotton, wool, and iron.
- 5. Commerce.—It has a greater maritime commerce than any other nation.
 - It has at least 17,500 merchant vessels, and more than 230,000seamen. They carry its manufactured products to every country on the globe, and bring in return food and raw materials. Λ large part of the food and two thirds of the raw cotton are obtained from the United States, which takes in return a greater quantity of manufactures than any other country. This commerce

is protected by the largest navy that has ever existed. Fortified naval depots for coal and provisions have been established on all the great routes of maritime trade. Among these depots are Gibraltar at the entrance, Malta in the middle, and Cyprus in the eastern part of the Mediterranean Sea; St. Helena, Cape Town, and Mauritius on the South African route, and Aden at the mouth of the Red Sea; Singapore at one end of the China Sea and Hong Kong at the other; Jamaica and other islands of the West Indies; Halifax, the Bermudas, and the Bahamas on the coasts of the United States; with many others in India and Australia, besides home depots.

the empire; if opposed by a majority of the House of Commons, he resigns, and the sovereign appoints his successor.

7. London, the capital of the kingdom and of the empire, is the most populous and wealthy city in the world; it is also first in commercial importance; it covers 122 square miles. Liverpool has a very large foreign commerce, especially with the United States; Manchester manufactures more cotton goods than any other city;



BRITISH NAVAL REVIEW

The several countries of Europe, and in many instances parts of the same country, differ widely in race, language, and religion. There are also intense commercial and political rivalries. As a result, mutual distrust and jealousy exist among the several governments, and Europe has become one great camp. In a time of professed peace between three and four millions of soldiers stand ready for war, and the milltary service is so arranged that this vast number of armed men can be more than doubled at the outbreak of hostilities. Besides all this, great navies, that of Great Britain being the most powerful, are ready to extend upon the sea the destruction which may at any time begin upon the land.

These enormous armaments are maintained by a grinding taxation and, in many countries, by a merciless conscription that withdraws millions of young men for years from all productive industry. In consequence of this, in every part of Europe thousands of women are obliged to work in the fields, and to engage in other forms of the hardest and rudest labor. In contrast with this state of affairs, the United States, though equal in area to all Europe, has but a small navy and a widely scattered army of about 25,000 men.

6. **Government.**—Great Britain is a constitutional monarchy.

The Legislature, or Parliament, has two branches—the House of Lords and the House of Commons. The members of the House of Commons are elected by the people. The executive power and the entire responsibility of the government are in the hands of a small body of men called the Ministry; they are appointed by the sovereign, through the influence of the Commons. The Prime Minister is practically the real ruler of

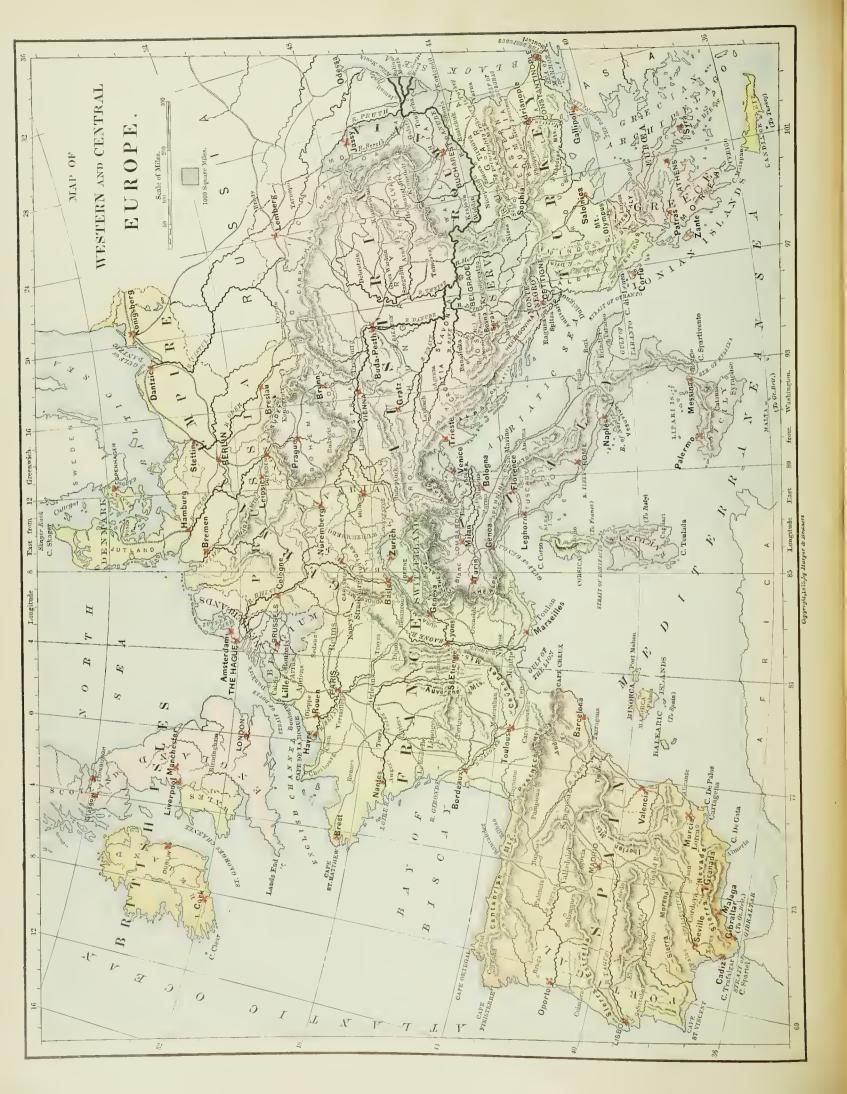
Leeds and Bradford are noted for woollen manufactures, Sheffield for cutlery, Birmingham for general hardware, Newcastle for coal. In Wales, Merthyr Tydvil and Swansea are the largest cities.

In Scotland, Glasgow is the largest city; it is also the leading manufacturing city and the chief seat of commerce. Edinburgh, the capital; Dundee, which manufactures sail-cloth and other coarse fabrics; and Aberdeen, a large sea-port, are important cities.

In Ireland, Dublin is the capital and largest city. Belfast manufactures more linen goods than any other city in the world. Cork and Limerick are also important cities.

Questions (I.)—1. What does the United Kingdom of Great Britain and Ireland include? What other possessions has it? What is meant by the British Empire?—2. In what does the chief wealth of Great Britain consist? What is said of agriculture?—3. Of the mines of Great Britain?—4. Of the manufactures? Name the most important.—5. What is said of the commerce?—6. Of the government?—7. What is said of London? Liverpool? Manchester? Leeds and Bradford? Sheffield? Birmingham? Newcastle? Merthyr Tydvil and Swansea? Glasgow? Edinburgh? Dundee? Aberdeen? Dublin? Belfast? Cork and Limerick?

(II.)—1. Name the most important British colonies. What other possessions has the United Kingdom?—5. How many merchant vessels has Great Britain? How many seamen? In what are they engaged? With what country is the chief trade? How is the foreign commerce protected? How is the navy made effective? Name the depots. In what do the several countries of Europe differ? What rivalries exist? What is the result? What is said of the standing armies? Of the navies? What country of Europe has the most powerful navy? By what means are these armies and navies maintained? What is the consequence? What is said of the army and navy of the United States?—6. Describe the government of Great Britain.



LXXXVIII.

OUESTIONS ON THE MAP

point of Spain? (Gibraliar.) What city is the capital? What port in the northeast? In the east? What ports rivers of Spain flow into the Atlantic Ocean? What one into the Mediterranean Sea? What two capes on the northwest coast? What one at the northeast point? What fortified promontory belonging to England is at the southern in the south? What city on the Guadalquivir? East of Spain.—What mountain ranges in Spain? What four Seville? Northeast of Granada? point of Spain?

Portugal. -- What mountain range crosses Portugal? What three rivers? What port near the mouth of the Douro? What is the capital? On what river? What cape at the southwestern extremity?

English Channel? The Gulf of the Lion? What mountains on the borders of France? In the interior? What capes on the coast? What cities on Seine River? Which is the capital? What city is its port? What city near Belgium? At the bend of the Rhone? Southwest of Lyons? On the Gulf of the Lion? On the Loire? What two cities France.—What countries east of France? What large island in the Mediterranean belongs to France? What two rivers flow into the Bay of Biscay? What one into the on Garonne River? What port in the northwest?

Italy. -- What two countries on the north of Italy? What river in the north? What four cities north of the Apennine Mountains? What city south of Bologna? What cities on the west coast of Italy? What is the capital of Italy? On what river? What two large islands belong to the Kingdom of Italy? What cities in Sicily?

Switzerland,--What countries border on Switzerland? What mountains on the western border? What lake on

lake? What city on the Rhine at the northern border? What lake on the southwestern border? What river flows feet.) What city is the capital? What city east of Basle? the northeastern border? What river flows through that through it? What city at the outlet? What lofty peak in the Alps is the highest in Europe? (Mount Blanc, 15,760

Austria. -- What countries bound Austria? What kingdom occupies the centre of Austria? (Hungary.) What mountains in the northern part of Austria? In the northeast? Near the Adriatic? Which is the principal river of What lake in Hungary? What city in the northwest? In the northeast? Southeast of Prague? What Hungarian atic Sea? What city is the capital of Austria? What city Austria? Name the three chief branches of the Danube. city on the Danube? What Austrian sea-port on the Adrisouthwest of Vienna?

What Roumania, Servia, and Montenegro. -- What two provinces constitute Roumania? What countries bound it? What is the capital? What countries bound Montenegro? What countries bound Servia? What rivers on the north? mountains, rivers, and sea? What is the capital? sea? What is the capital?

Turkey. -- What countries bound Turkey? What waters? What principality south of the Danube? What city in it? What province south of Bulgaria? What mountains in Turkey? What Turkish island south of Greece? What city is the capital of Turkey? What city northwest of Constantinople? What port on the Dardanelles? What other port in the southern part of Turkey?

of the mainland? What city is the capital of Greece? What town on the northern shore of the Morea? What two ports in the Ionian Islands? What one in the Cyclades? Denmark.—Name the principal Danish islands. What peninsula partly in Denmark? What city is the capital? Greece. -- What peninsula in Greece? What island northeast of the mainland? What group south of Eubœa? West

LXXXIX.

REVIEW EXERCISES

MADRID? Barcelona? Seville? Valencia? Granada? Malaga? Murcia? Cadiz? Gibraltar? Lisbon? Oporto? PARIS! Lyons! Marseilles! Bordeaux? Lille? Tououse? Nantes? St. Etienne? Havre? Rouen? ROME? Naples? Milan? Palermo? Turin? Florence? Genoa? Venice? Bologna? Messina? Leghorn? Berne? Geneva? Zurich? Basle? Vienna? Buda-Pesth? Prague? GRADE? CETTIGNE? CONSTANTINOPLE? Adrianople? Trieste? Gratz? Brunn? Lemberg? Bucharesr? Bel-Cities.—In what part of the country? How situated?— Salonica? ATHENS? Syra? Patras? Zante?

Islands. -- Where situated ?-Balearic Islands? Corsica? Sardinia? Sicily? Malta? Ionian Islands? Cyclades? Capes. - From what coast does it project? - Gibraltar? St. Vincent? Finisterre? St. Matthew? La Hogue? Eubcea? Candia? Cyprus? Iceland?

Mountains.—Where are they ?-Sierra Nevada? Sierra enees? Jura? Alps? Cevennes? Auvergne? Mount Blanc? Apennines? Balkan? Carpathian? Etna (v.)? Morena? Sierra Estrella? Cantabrian? Iberian? Pyr-Vesuvius (v.)? Hecla (v.)? Creux? Matapan?

Seas, Gulfs, and Bays. -- Where is it? -- Mediterranean? Marmora? Black? Adriatic? Genoa? The Lion? Biscay?

RIVETS.—Where does it rise? In what direction does it ber? Po? Danube? Pruth? Save? Drave? Theiss? flow? Through what countries? Into what body of water? -Rhine? Seine? Loire? Gironde? Garonne? Douro? Tagus? Guadiana? Guadalquivir? Ebro? Rhone? Ti-

EUROPE AND CENTRAL WESTERN

XC.

DESCRIPTION

1. Spain and Portugal. — The commerce The rivers are not navigable. Railways conof Spain and Portugal is comparatively limited. nect all the important cities.

Spain exports wool from the dry plains of

the table-land, cork from its oak forests, and | Among other cities are Seville, noted for fruit wine, olive-oil, silk, and fruits from the Mediter-

Portugal are similar to those of Spain,

ranean and the Guadalquivir. The exports of

in population, is the chief commercial city. I the second city, is famous for its port-wine. Spain, is noted for its palaces and its galleries 2. Madrid, the capital and largest city of of valuable paintings. Barcelona, the second

and for the largest tobacco manufactories in Europe; Valencia, famous for silks; and Malaga, for fruits and wines.

3. Lisbon, the capital of Portugal, is the manufacturing city of the kingdom. Oporto, largest city; it is the principal commercial and



The chief colonial possessions of Spain are Cuba, Porto Rico, and the Philippine Islands; those of Portugal are the Azores, the Cape Verde, and the Madeira Islands, and Lower Guinea in Africa.

4. **France.**—The greater part of the people of France

are engaged in agriculture. In the extent of its commerce and the value of its manufactures it is second only to Great Britain. Coal-mines near Belgium and in the Cevennes furnish an abundance of fuel for steam-power.

The country is covered with a network of railways. Its four great rivers, the Garonne, the Loire, the Seine, and the Rhone, are navigable for small steamers, and are connected by canals.

The leading exports are wines and liquors, silks, woollens, cottons, jewelry, and hardware.

5. Paris, the capital of France, is the largest city on the continent of Europe. It is a great centre of learning, fashion, and the fine arts. It is noted for its magnificent public buildings, its numerous and excellent literary

and scientific institutions, and its varied and tasteful manufactures. It is the central point of nearly all the railways of the country. Lyons, the second city, is the chief seat of the silk manufacture. Among the other

large cities are Marseilles, the most important port; Bordeaux, the principal depot for wines and brandies; Lille, noted for its cloths and cotton and linen goods; and Havre, the port of Paris.

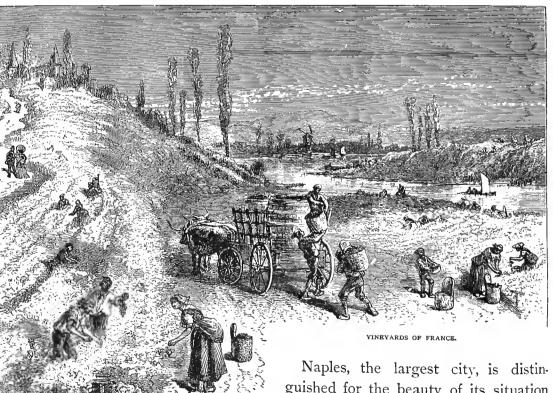
The foreign possessions of France are quite extensive. Algeria, in Africa, and the island of Corsica are provinces having representatives in the French Legislative Assembly. Besides these there are colonies in Africa, the West Indies, Guiana, the Indian Ocean, Polynesia, India, and Indo-China.

6. Italy.—Italy has a large export trade in olive-oil, fruits, sulphur, and in manufactures of silk, linen, and straw.

The Po and the Adige are the only navigable rivers. The fertile plain through which they flow produces a large amount of wheat, maize, and rice.

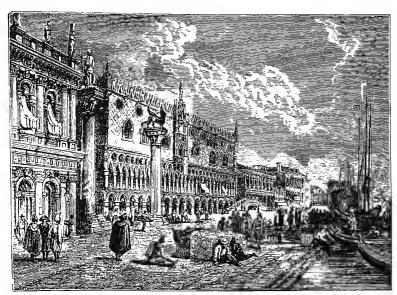
7. Rome, the capital of Italy, is the most celebrated city in history. It was the capital of the ancient Roman Empire. It is the residence of the Pope, who is the head of the Roman Catholic Church.

Its magnificent ruins, its collections of ancient sculptures and paintings, the splendor of its churches, and its religious importance attract great numbers of visitors from every part of the world.



Naples, the largest city, is distinguished for the beauty of its situation and for its manufactures of silk. Among other important cities are Milan, noted for its silk trade and its

cathedral; Palermo, the largest city in Sicily; Turin, recently the capital of Italy; Florence, containing one of the finest collections of paintings and statuary in the world; Genoa, the birthplace of Columbus; and Venice,



SCENE IN VENICE

remarkable for its situation on several small islands, and for its numerous canals, which take the place of streets.

8. **Switzerland.**—Switzerland, the highest part of Europe, is chiefly a land of mountains.

The ranges of the Alps, with their intermediate valleys, cover two thirds of the country. A high plain between the Alpine system and the Jura Mountains constitutes the remaining third. This plain and most of the Alpine valleys are carefully cultivated, and flocks and herds abound.

- 9. Switzerland is a federal republic of twenty-two small states called Cantons. About three fourths of the inhabitants are Germans, about one sixth are French, and most of the remainder Italians.
- 10. The manufacture of small articles, such as watches, jewelry, silk-stuffs, ribbons, and toys, is the chief occupation; these articles, and cattle, butter, and cheese, are the chief exports. The foreign trade is carried on chiefly through Germany and France.
- 11. Geneva, noted for its manufacture of watches and for its beautiful situation at the outlet of Lake Geneva, is the largest city. Basle, the second city, and Zurich are largely engaged in the manufacture of silks. Berne is the capital.

Questions (I.)—I. What is said of the commerce of Spain and Portugal? Of the rivers? Of the railways? What are the chief exports of Spain? Of Portugal?—2. For what is Madrid noted? Barcelona? Seville? Valencia? Malaga?—3. Lisbon? Oporto?—4. What is the chief occupation of the people of France? What is said of the commerce and manufactures? Of the coalmines? Of the railways? Of the rivers? What are the principal exports?—5. What is said of Paris? Lyons? Marseilles? Bordeaux? Lille? Havre?—6. What are the chief exports of Italy? What are its chief rivers? What are the productions of the plain of the Po?—7. What is said of Rome? Naples? Milan? Palermo? Turin? Florence? Genoa? Venice?—8. Which is the most elevated country in Europe? What is the general character of the country?—9. What is the form of government? How many states are there? What are they called? Who are the inhabitants?—10. What is the chief occupation? What are the chief exports? How is the foreign trade carried on ?—11. What is said of Geneva? Basle and Zurich? Berne?

(II.)—3. What is said of the foreign possessions of Spain and Portugal?—5. Of France? What other possessions?—7. What are the chief attractions of Rome?—8. What mountains cover a large part of Switzerland? Where is the high plain?

XCI.

AUSTRIA,-TURKEY,-GREECE,-DENMARK.

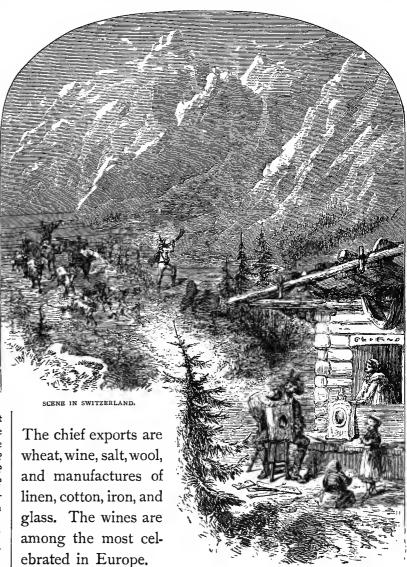
1. Austrian Empire.—The proper official title of Austria is "The Austro-Hungarian Empire."

It is divided into two distinct and nearly independent groups of provinces. Each group has a government of its own; there is also a general government for the whole empire.

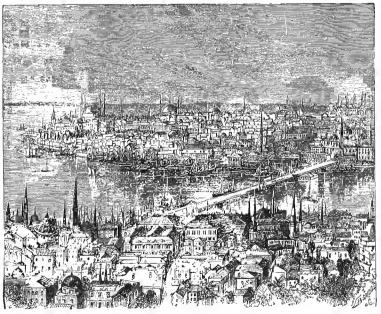
The Kingdom of Hungary and its dependencies constitute nearly one half of the empire. The Emperor of Austria is King of Hungary.

The provinces differ so much in nationality, race, language, and religion that the empire is with difficulty held together. One fourth of the people are Germans, and are mostly in the provinces bordering on Germany; one sixth are the Magyars of Hungary (Mongols); one half are Sclaves; the remainder are Jews, Gypsies, Greeks, etc.

- 2. The Danube and its navigable branches form an important system of water-ways, extending entirely across the empire. There are also numerous railways.
- 3. The country is rich in a great variety of agricultural productions, valuable minerals, and extensive forests.



- 4. Vienna, the capital of the empire, is the largest city; it is the chief centre of manufactures and domestic commerce, and is connected by railways with every part of the empire. Buda-Pesth is the capital of Hungary, and the great emporium of the kingdom. Prague is the third city of the empire in population. Trieste, the principal seaport of the empire, has an extensive commerce.
- 5. Roumania, Servia, and Montenegro. These countries were formerly parts of the Turkish Empire, but are now independent Christian states.
- 6. Turkish Empire. The Turkish or Ottoman Empire includes European Turkey, Asiatic Turkey, a large part of Northeastern Africa, a part of Arabia, Crete, and other islands.
 - Though possessed of unsurpassed natural advantages for agriculture, commerce, and other industries, an oppressive government has made Turkey the lowest of European countries in the scale of civilization.
- 7. The inhabitants of European Turkey are of many races, languages, and religions. The Turks are the governing race, though they constitute only a small part of the population; they are Mongol Mohammedans from Asia. Bulgaria is a self-governing but tributary principality.
- 8. The chief exports of Turkey are tobacco, wine, oliveoil, cotton, fruits, silk, wool, carpets, and Morocco leather.



CONSTANTINOPLE

9. Constantinople, beautifully situated on the Bosporus, is the capital of the Turkish Empire, and the residence of the Grand Sultan, or Emperor, who is also the head of the Mohammedan religion. Adrianople and

Salonica are the chief commercial centres, and are noted for the manufacture of carpets, silks, and leather.

10. Greece.—Greece may be divided into Continental Greece and Insular Greece. Continental Greece includes the mainland and the peninsula of the Morea, or Peloponnesus; Insular Greece includes the Ionian Islands and those of the Grecian Archipelago.

Insular Greece is commercially the more important. It contains one third of the population, and all the larger towns except Athens and Patras.

Greek merchants and seamen conduct the greater part of the commerce of the Black Sea and the Levant, or eastern part of the Mediterranean.

The principal exports are olive-oil, honey, silk, wax, wine, currants, figs, and raisins.

- The ancient Greeks were celebrated above all other peoples for their valor and patriotism, and for their genius in literature, philosophy, and the fine arts. Their poets, philosophers, orators, historians, architects, and sculptors have never been surpassed.
- 11. Athens, the capital and largest city, was noted in ancient times for its pre-eminence in art and literature. Syra, or Hermopolis, is the commercial centre; it is the chief station of the lines of steam vessels navigating the Eastern Mediterranean. Zante, Corfu, and Patras are important ports.
- 12. **Denmark.** Denmark consists of a number of islands and the northern half of the peninsula of Jutland. The islands contain the greater part of the population.
- 13. Agriculture and fishing are the principal occupations. Horses, cattle, butter, cheese, pork, and grain are largely exported.

The colonial possessions are Greenland, Iceland, the Faroe Islands, and several small islands in the West Indies.

14. Copenhagen, on the island of Zealand, is the capital and largest city.

Questions (I.)—1. What is the official title of Austria? What kingdom is a part of the empire? Who is its king?—2. What system of water-ways is there? What other means of transportation?—3. In what is Austria rich? What are the principal exports? What is said of the wines?—4. For what is Vienna noted? Buda-Pesth? Prague? Trieste?—5. What is said of Roumania, Servia, and Montenegro?—6. What does the Turkish or Ottoman Empire include?—7. How do the inhabitants differ? What is said of the Turks? What is said of Bulgaria?—8. What are the exports of Turkey?—9. For what is Constantinople noted? Adrianople and Salonica?—10. How may Greece be divided? What does Continental Greece include? Insular Greece? Which is the more important division of Greece? What is said of it? Who conduct most of the commerce of the Black Sea and the Levant? What does Levant mean? What are the exports of Greece?—11. For what is Athens noted? Syra? What important ports?—12. Of what does Denmark consist? Where is most of the population?—13. What are the chief occupations? Exports?—14. For what is Copenhagen noted?

(II.)—1. How is the empire divided? How governed? Why is Austria governed with difficulty? What part of the people are Germans? What part Mongols? What race is most numerous? What other peoples in Austria?—6. What is the rank of Turkey in the scale of civilization?—10. For what were the ancient Greeks celebrated?—13. What colonial possessions has Denmark?



XCII.

QUESTIONS ON THE MAP.

Germany.—What two seas bound Germany on the north? What kingdom? What empire east? What empire south? What republic? What three countries on the west? What German state north of the Prussian province of Brandenburg? What one nearly enclosed by Hanover? What kingdoms between Prussia and Austria? What group of small states west of Saxony? (The Saxes.) What kingdom west of Bavaria? What state west of Wurtemberg? What state between Baden and Prussia? (Hesse.) What German province west of Baden? (Alsace-Lorraine.)

Prussia.—What five rivers cross Prussia? What mountains in Prussian Saxony? What city in the Rhine Provinces? Which are the two chief branches of the Rhine? What city on the Main? In Westphalia? In Hanover? In Prussian Saxony? On what river is Magdeburg? What city is the capital of Prussia? On what river is Berlin? What port near the mouth of the Oder? What city in Silesia? What mount-

ains between Silesia and Bohemia? What city on the Gulf of Dantzic? What one in the northeastern part of Prussia?

Bavaria.—What mountains east of Bavaria? What Austrian province? What river crosses Bavaria? What German states form the northern and western boundaries? What city is the capital? On what river? What city nearly west of Munich? What one in the northern part of the kingdom?

Saxony.—What German states border on Saxony? What Austrian province? What mountains between them? What city is the capital? What city in the northern part?

Other States.—What city is the capital of Wurtemberg? Of Baden? What city in Alsace? What port on the Elbe near its mouth? What city on the Weser? On the Baltic northeast of Hamburg?

Netherlands.—What water on the west and north? What country south? What three provinces of Prussia on the east? What sea in the Netherlands? What great river crosses the kingdom? What city on the Zuyder Zee? What one south of Amsterdam? West of Utrecht? Southwest of Leyden? Southeast of The Hague? What city is the capital?

Belgium.—What German provinces east of Belgium? What one south? What country southwest? What two rivers in Belgium? Into what do they flow? What mountains near the French border? What cities on or near the Scheldt? What city west of Antwerp? Northwest of Ghent? On the Meuse? What city is the capital?

XCIII.

REVIEW EXERCISES.

Cities.—In what part of the country? How situated?—BERLIN?
Breslau? Cologne? Magdeburg? Konigsberg? Hanover? Frankfort-

on-Main? Dantzic? Stettin? Barmen? Posen? Munich? Nuremberg? Augsburg? Dresden? Leipsic? Stuttgart? Hamburg? Bremen? Lubec? Carlsruhe? Strasbourg? The Hague? Amsterdam? Rotterdam? Utrecht? Leyden? Brussels? Antwerp? Ghent? Liege? Bruges?

Mountains.—Where are they?—Bohmerwald? Erz? Riesen? Harz? Ardennes?

Rivers.—Where does it rise? In what direction does it flow? Into what body of water?—Rhine? Moselle? Main? Weser? Elbe? Oder? Vistula? Meuse? Scheldt?

Seas and Gulfs.—Where is it?—North Sea? Baltic Sea? Zuyder Zee? Gulf of Dantzic?

GERMAN EMPIRE AND NETHERLANDS AND BELGIUM.

XCIV. DESCRIPTION.



1. The German Empire is a confederation of twentysix states, and is the greatest military power in the world. It contains four kingdoms—Prussia, the largest and most populous, Saxony, Bavaria, and Wurtemberg.

Besides these kingdoms there are grand duchies, duchies, principalities, and the free cities Hamburg, Bremen, and Lubec.

2. **Government.**—The general government of the empire is a limited monarchy. All the separate states are also limited monarchies, excepting the three free cities, which are democratic republics. The King of Prussia is the German Emperor.

The Legislature of the empire consists of two bodies—the Federal Council, consisting of 58 members, and somewhat resembling the English House of Lords; and the Reichstag, consisting of 397 members, who are elected by universal suffrage.

The Kingdom of Prussia is one of the most powerful monarchies of Europe. It is noted for its great and efficient armies, the general intelligence of its people, and the most complete and comprehensive system of public schools in the world.

3. **Population.**—The total German population of Europe is about sixty-two millions. Of these about forty-nine millions are inhabitants of the empire. Austria has about ten millions, Switzerland two millions, and Russia one million.

The Germans are remarkable for their attainments in science, literature, and art, and for their military skill.

- 4. **Manufactures.**—The manufactures are varied and extensive. The exports are wheat, wine, zinc, and manufactured articles. Prussia furnishes about half the zinc used in the world.
- 5. The principal cities of the German Empire are Berlin, the capital and largest city of Prussia; Breslau, the principal wool market on the Continent of Europe; Cologne, the chief city of the Rhine Provinces, noted for its cathedral and its trade in wines; Konigsberg and Dantzic, the principal grain ports of Prussia; Stettin, an important port; Coblentz and Magdeburg, famous for their strong fortifications; Barmen, celebrated for its extensive cotton manufactures; and Frankfort, the financial



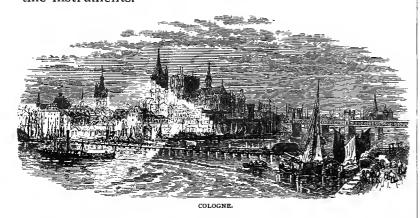
BINGEN.

centre and the emporium of inland trade.

Of the free cities, or small republics, Hamburg is the chief commercial city of the continent of Europe, and the depot of trade with America and Great Britain; and Bremen is the principal port for the German emigration to the United States.

Dresden, the capital of Saxony, is noted for its art galleries; Leipsic, for its extensive manufacture of books and for its annual fairs.

Munich, the capital of Bavaria, is noted for its art galleries and its manufacture of telescopes and other scientific instruments.



Among other cities of Germany are Stuttgart, celebrated for its vineyards; and Strasbourg, for its cathedral and for its famous sieges.

- 6. **Netherlands and Belgium.**—These countries are densely populated, Belgium being the most crowded part of Europe.
- 7. **Possessions.**—The colonial possessions of the Netherlands are, next to those of Great Britain, the most valuable in the world.

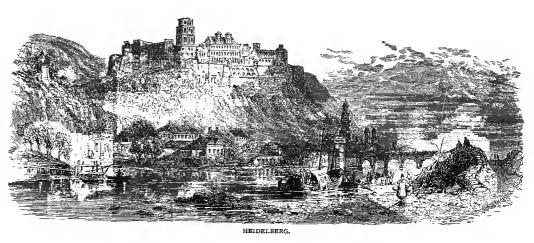
They include the most important portions of the East Indian Archipelago, Dutch Guiana, and several islands in the West Indies.

8. Surface.—A considerable portion of Belgium, and a still larger part of the Netherlands, lie below the level of the sea.

The waters of the ocean are kept out, in part, by long hills of sand called "dunes," which have been thrown up by the waves and winds, and in part by great banks of earth called dikes, which face the sea and extend up the rivers.

The southern part of Belgium is mountainous, and is rich in timber, coal, and iron.

These supply the elements of mechanical power, and, together with the abundance of labor and the number of the ports, railways, navigable rivers, and large canals, place these countries among



the foremost in the world in all the forms of mechanical industry, in foreign and domestic commerce, and in wealth.

- 9. **Occupations.**—Agriculture is the principal occupation in the Netherlands, and manufactures and mining in Belgium.
- 10. **Commerce.** The foreign trade is one of the largest in the world. The Netherlands export fish, dairy products, and the produce of their extensive East and West Indian colonies. Belgium exports a great amount and variety of fine manufactured goods, including those of silk, cotton, wool, linen, leather, and iron.
- 11. Amsterdam, the largest city of the Netherlands, is remarkable for its many street canals, its great dikes, and its extensive maritime commerce; and Rotterdam, the second city, for its distilled liquors. The Hague, Utrecht, and Leyden are important cities.

The chief cities of Belgium are Brussels, the capital and largest city, celebrated for its manufactures of lace and carpets; Antwerp, the principal port and fortress of Belgium; Ghent, second only to Manchester in England in the manufacture of cotton goods; Liege, noted for firearms and cutlery; and Bruges, celebrated for its manufactures of linen and lace.

Questions (I.)—1. What is the German Empire? How many and what kingdoms does it contain?—2. What is the government of the empire? Of the separate states? Of the free cities? Who is the German Emperor? What is said of the Kingdom of Prussia? For what is it noted?—3. What is the total German population of Europe? Of the German Empire? Of Austria? Of Switzerland? Of Russia? For what are the Germans remarkable?—4. What is said of the manufactures? What are the exports?—5. What is said of Berlin? Breslau? Cologne? Konigsberg? Dantzic? Stettin? Coblentz and Magdeburg? Barmen? Frankfort? Hamburg? Bremen? Dresden? Leipsic? Munich? Stuttgart? Strasbourg?—6. What is said of the population of the Netherlands and Belgium?—7. Of the colonial possessions of the Netherlands?—8. Of the surface of the Netherlands and Belgium? Of the southern part of Belgium? In what is it rich?—9. What are the leading occupations in these countries?—10. What is said of the foreign trade? What are the principal exports of the Netherlands? Of Belgium?—11. For what is Amsterdam noted? Rotterdam? What other large cities? For what is Brussels noted? Antwerp? Ghent? Liege? Bruges?

(II.)—1. What other political divisions are included in the German Empire?—2. Of what does the legislature consist?—7. Which are the colonial possessions of the Netherlands?—8. How are the Netherlands and Belgium protected from the waters of the ocean? In what respects are these countries among the foremost in the world? What are the causes?



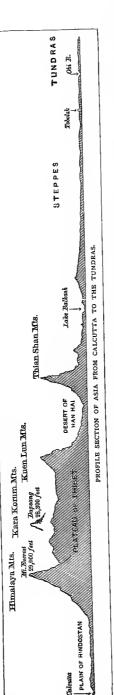
OUESTIONS ON THE MAP.

What strait leads to it? What gulf west of the Arabian Sea? and Sumatra. What two gulfs are connected with the China Sea? What bay and sea with the Indian Ocean? What gulf north of the Arabian Sea? What strait leads to it? What sea between Asia and south of it? Name the five principal straits between the Arctic Ocean Okhotsk Sea? of the Strait of Formosa? In the northern part of the China Sea? What peninsula at the southeastern extremity of Asia? What island What islands north of Asia? What China Sea? What peninsula between Japan Sea and What islands east of the Blue Sea? What island east What three oceans wash the shores of Asia? What continents on the west? What isthmus connects Asia with Africa? Name the six islands and peninsula partly enclose Behring Sea? principal seas of the eastern coast. Yellow Sea? apan Sea? Africa?

Asia extends from Pameer to the Persian Gulf? What three deserts that rise in the plateau belt or on its borders. What plateau of western Sea? What deserts on the Arabian plateau? What plain between border? What system forms its northern border? What mountains mountain systems between the plateau belt and the Siberian plains? What mountains south and east of the deserts? Name the great rivers on the plateau of Iran? What mountains separate it from the Siberian Plains? What plateau between the Persian Gulf and the Red in the western part? What two deserts are east of Pameer? What east or west of the plateau of Pameer? What plateau forms the highest part of the eastern mass? What mountain system forms its southern What beit south of Arctic Asia? What plateau is the narrowest part of the plateau belt? Do most of the plateaus and mountains lie the plateaus of Iran and Arabia? What two rivers drain it?

What belt south of the plateau belt? Which are the chief penin-Arabia? What island south of Hindostan? What plateau in Hindo-Peninsular Asia? What waters embrace the peninsula of sulas of

FIDER



near Taurus Mountains? Near the head of the Red Sea? What lake Southwest of the forest belt? What three great rivers drain the plain? What great river flows into the Okhotsk Sea? lakes or seas in the southwestern part of the Siberian Plain? Which of these is the largest lake in the world? What mountains between the Caspian and Black seas? South of the Black Sea? What peak What large island east of the Channel of Tartary? What three large Of what does Arctic Asia chiefly consist? (Lowland plains.) What general name is given to the northern plain? With what European What mountain system partly separates them? In what part of it are the tundras or mossy marshes? What belt lies in the southern part of Arctic Asia? plain is it connected? south of the tundras?

stan? What mountains form its eastern and western borders? In what part of Hindostan are the plains? What river drains the western part of the plains? The eastern part? What islands east of Corea? valleys of Indo-China?

what mountains is the greater part of it? What two rivers cross the plain of China? What two peninsulas in the eastern part of Asia? What peninsula between the Mediterranean and the Black Sea? In what part of Asia are the volcanoes? peninsula does it terminate? What isthmus does it contain? What cape at the extremity? What plain in Southeastern Asia? Between What peninsula east of Hin-Which is its chief river? In what smaller dostan? What is the general direction of the mountains, rivers, and What volcano in Hondo?



XCVI.

DESCRIPTION,

1. Asia is the largest of the continents. It is also first in the number and height of its mountain systems; in the extent and elevation of its plateaus; in the size of its peninsulas, archipelagoes, and salt lakes; in the number of

its inhabitants, and in their diversity of race, language, religion, and civilization.

PHYSICAL ASIA

2. It may be divided into four nearly parallel belts, viz., Arctic Asia, Desert Asia, Peninsular Asia, and Insular Asia.

3. Arctic Asia is included mainly in the Great Siberian Plain.

The Siberian Plain extends from the Elburz and Altai Mountains to the shores of the frozen ocean. It has a climate of unsurpassed severity. It consists of three belts of country similar to those of the Great Plain of European Russia.

In the north are mossy swamps, called tundras, inhabited by nomad tribes dependent upon the reindeer and upon the fish of the great rivers.

[For remainder of Section XCVI., see page 104.]

XCVII. OUESTIONS ON THE MAP,

General.—What country occupies the northern part of the Continent of Asia? What empire the southeastern part? What empire east of it? What countries occupy the remainder of Asia? Asiatic Russia.—What province forms the greater part of Asiatic Russia? What cities on the Obi? What branch has the Obi? What cities on the Irtish? What city southwest of Tobolsk? What city near Lake Baikal? South of Irkoutsk in the Chinese Empire? What province north of the Amoor River? What province east of the Caspian Sea? What rivers in it? What city on the Amoo? What city southeast of Khiva? What country between the Caspian and Black seas? What city in Georgia?

Chinese Empire.—In what part of the empire is China? What province west of China? What is the capital of Thibet? What province north? What is the capital? What other city? What province northwest of China? What province east of Mongolia? What kingdom southeast of Mantchooria? What two great rivers in China? What canal connects them? What city is the capital? What city in the southern part of China? What British island and port near Canton? What cities on or near the eastern coast? What cities on the Yang tse Kiang?

Empire of Japan.—Name the four principal islands of this empire. Which is the largest? What city is the capital? What port near it? What other cities in Hondo?

Indo-China.—What countries are in Indo-China? What European nation owns the northwestern shores? The southeastern shores? What city is the capital of Anam? Of Siam? What port in the French possessions?

British India.—What peninsuia forms the principal part of British India? What country in Indo-China is a part of British India? What island, town, and settlements near

the Strait of Malacca? How does Ceylon compare in size with Ohio? What city is the capital? What cities on or near the Ganges? Which is the capital? What port on the western coast? What city north of Bombay? What one southeast? North of Delhi? On the eastern coast?

Afghanistan, Beloochistan, and Persia.—What cities in Afghanistan? What city in Beloochistan? What desert? What deserts in Persia? What city is the capital? What city in the northwest? In the northeast? Near the centre? What sea-port has Persia?

Arabia.—What state north of the Arabian Desert? What city is its capital? What provinces of the Turkish Empire border on the Red Sea? What cities in Hedjaz? In Yemen? What is the sea-port of Mecca? What country in the southeastern part of Arabia? Its capital? What port on the Gulf of Aden? What island in the Persian Gulf?

Turkey.—What city in Europe is the capital of Turkey? What two cities in the southeast? What port on the Archipelago? What two cities northeast? What one southeast? What two cities in Palestine? What sea-port? What small lake or sea? What island west?

XCVIII.

REVIEW EXERCISES,

Countries.—Where is it? How bounded? What is the capital?

Names.	Area in Sq. Miles.	Population,	Names.	Ares in Sq. Miles.	Population.
Asiatic Russla Bokhara, Khiva,		6,465,339 14,126,793	British India British Indo-		1,436,354 281,620,000
and Pamir	127,805	1,780,000	China	323,160	323,160 10,762,000
Chinese Empire.	4,291,981	4,291,981 361,500,000	Afghanistan	239,778	4,600,000
Corea	84,424	84,424 10,519,000	Beloochistan	166,802	1,020,000
Japan	147,629	40,072,020	Persia,	635,161	7,500,000
French Indo-			Indepen't Arabia	959,274	2,142,000
China	189,005	189,005 18,914,000	Turkey	709,360	15,479,147
Siem	308,893	9,000,000		-	

Gities.—In what part of the country? How situated?

—Irkoutsk? Tomsk? Omsk? Tobolsk? Barnaul? Tiumen? Maimatchin? Tiffis? Khiva? Bokhara? Pekin? Shanghai? Han-chau? Fuh-chau? Canton? Nankin? Hong Kong? Su-chau? King-teh? Tientsin? Lassa? Seoul? Kashgara? Yarkand? Tokio, or Yedo? Kioto? Ozaka? Yokohama? Hue? Bankok? Saigon? Calcura? Bombay? Madras? Benares? Singapore? Surat? Colombo? Hyderabad? Lucknow? Delhi? Patna? Cashmere? Mandalay? Herat? Cabul.? Kandahar? Kelat? Teheran? Tabriz? Ispahan? Meshed? Bushire? Mecca? Medina? Jiddah? Hodeida? Mocha? Aden? Riad? Basgdad? Bassorah?

Islands.—Where situated?—Nova Zembla? New Siberia? Kurile Islands? Saghalin? Japan? Yezo? Hondo? Shikoku? Kiushiu? Formosa? Hainan? Ceylon? Cyprus?

Peninsulas,—From what part of Asia does it project?— Kamtchatka? Corea? Indo-China? Malay? Hindostan? Arabia? Turkey? Mountains.—Where are they?—Ural? Altai? Yablonoi? Khin Gan? Peling? Nanling? Thian Shan? Kuenlun? Kara Korum? Himalaya? Eastern Ghauts? Western Ghauts? Hindoo-koosh? Elburz? Taurus? Caucasus? Mount Sinai? Mount Ararat? Mount Fujiyama (v.)?

Seas, Gulfs, and Bays.—Where is it?—Behring? Okhotsk? Japan? Yellow? Blue? China? Arabian? Red? Gulf of Tonquin? Aden? Siam? Persian? Bay of Bengal?

Straits.—Between what lands? What waters does it connect?—Behring? Channel of Tartary? Corea? Formosa? Malacca? Ormuz? Bab el Mandeb?

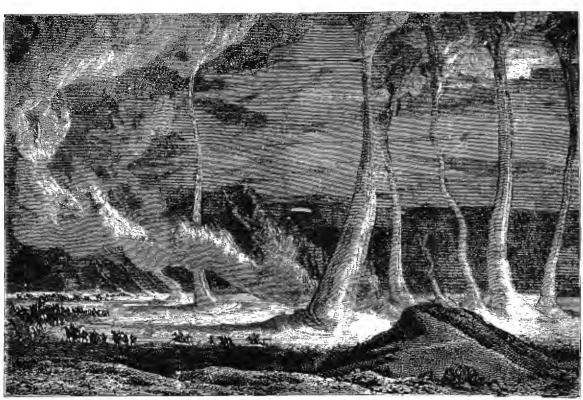
Rivers.—Where does it rise? In what direction does it fow? Into what body of water?—Obi? Irrish? Yenisei? Lena? Amoor? Hoang Ho? Yang tse Kiang? Cambodia? Brahmapootra? Ganges? Indus? Tigris? Euphrates? Amoo? Sihon?

In the south and southwest are immense grassy regions, called steppes, the home of barbarous nomadic Tartars, who subsist principally upon sheep and horses.

Between these belts is a vast ever-green forest, abounding with fur-bearing and other wild animals. Its cleared portions are inhabited by Europeans.

4. **Desert Asia** is a broad belt of high and dry plateaus, extending from the Red and Mediterranean seas almost to the shores of the Pacific Ocean. The plateau of Thibet is the highest in the world.

Nearly the whole of this belt excepting Arabia has great extremes of climate—hot and dry summers and severe winters. The belt of deserts is broken by the low and fertile plain of the Euphrates, once the seat of powerful empires. The mountain slopes and other fertile portions of the plateau contain populous agricultural communities, civilized but not enlightened. The remaining portions are inhabited by nomadic tribes.



SAND-SPOUTS IN THE DESERT.

5. **Peninsular Asia** is the most important division of the continent. It crosses and includes the western part of the Plateau Belt. Its southeastern peninsulas, Hindostan, Indo-China, Corea, with the projecting portion of China, contain at least one half of all the human race. The densest populations are found in the low plains.

Palestine, in the southwestern part of Turkey, is noted not only as the Holy Land of the Bible, but also for its physical peculiarities. It contains the Dead Sea, which is situated in a most remarkable depression of the earth. The surface of this sea is about 1300 feet below the level of the Mediterranean. Its waters are intensely salt, and, except near the mouth of the River Jordan, which flows into it, contain no animal life.

East of the Indus River the climate is hot and moist; west of the Indus it is hot and dry.

Judaism, Christianity, Mohammedanism, Brahminism, and Buddhism, which are the chief religions of mankind, originated in Peninsular Asia.

6. Insular Asia includes the richest and most important archipelagoes in the world.

Note.—With the exception of Ceylon and Japan, Insular Asia will be described in a separate division, under the name of Malaysia.

7. Two races, the Mongol and the Caucasian, occupy nearly the whole of Asia. The Himalaya, Hindoo-koosh, and Caucasus Mountains separate them. Nearly all to the north of these mountains are Mongols; nearly all to the south are Caucasians. Malay Peninsula and parts of Insular Asia are occupied by the Malay race.

8. Vegetation.—The bamboo, aloe, ebony, and san-

dal-wood, among trees; the banana, date, fig, olive, tamarind, and cocoa, among fruits; cinnamon, cloves, and nutmegs, among spices; besides sugar, hemp, flax, rice, opium, tea, coffee, and cotton, indicate the great diversity of Asiatic vegetation.

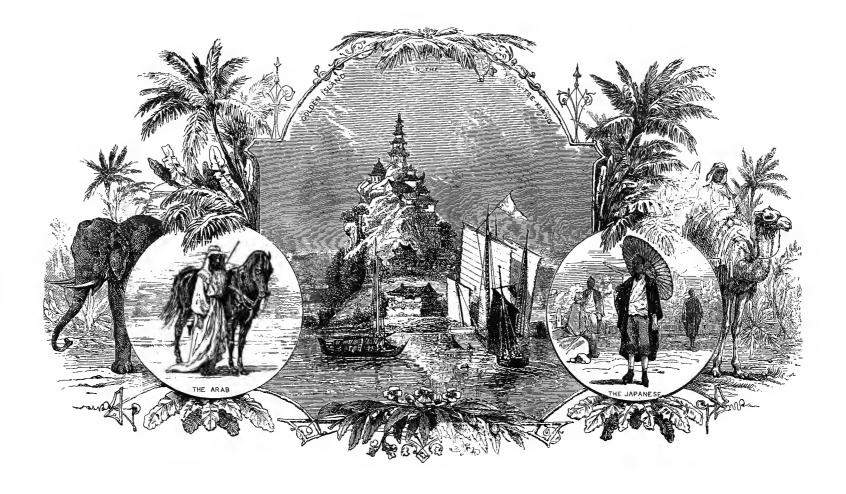
9. **Animals.** — Among the chief animals of Asia are the tiger, elephant, tapir, buffalo, rhinoceros, orangoutang, arctic fox, pangolin, or ant-eater, zebra, and camel. Poisonous serpents, the crocodile, and other reptiles abound in southern Asia.

Our domesticated animals, the horse, ass, goat, sheep,

ox, hog, our common fowls, all of our grains excepting maize, and many of our most important fruits and vegetables, were derived from Asia.

Questions (I.)—1. What is said of the size of Asia? In what particulars does Asia surpass all other continents?—2. Into how many and what physical belts may it be divided?—3. What plain occupies the greater part of Arctic Asia?—4. What is Desert Asia? What is its extent? Which is the highest plateau?—5. Which is the most important division of the continent? What other belt does it partly include? What is said of the population? For what is Palestine noted? What remarkable sea does it contain? What is said of the surface of the Dead Sea? Of its waters?—6. What does Insular Asia include?—7. What two races occupy nearly the whole of Asia? By what are they separated? Where are the Mongols? The Caucasians? The Malays?—8. What is said of the vegetation?—9. Name the principal animals of Asia.

(II.)—3. Between what limits does the Siberian Plain extend? What is the character of its climate? Of what does it consist? Describe the northern belt. Southern belt. Middle belt.—4. What is the climate of Desert Asia? By what is the belt of deserts broken? By whom are the plateaus inhabited?—5. What is the climate east of the Indus River? West? What religions have originated in Peninsular Asia?—9. What animals were derived from Asia? What other things?



POLITICAL ASIA.

XCIX.

DESCRIPTION.

- 1. **Asiatic Russia.**—Asiatic Russia covers more than one third of Asia. It includes Siberia, Russian Turkestan, and Georgia or Trans-Caucasia, and extends from Behring Strait to the Black Sea.
- 2. **Siberia.**—Among the resources of Siberia are furs from the forest belt; gold, chiefly from East Siberia; copper, iron, and gold from the Ural; and fossil ivory from the islands of New Siberia.

The longest inland commercial route on the globe extends from Pekin, through Maimatchin, Irkoutsk, Tomsk, and Tobolsk, to Moscow and St. Petersburg.

The population of Siberia is about 4,300,000 mostly occupying the river-valleys in the south. A large part are exiles or descendants of exiles from European Russia, whence about 12,000 criminals are banished every year. The worst are condemned to labor in the mines. Most of the others take their families with them, and receive small grants of land.

Irkoutsk is the principal city. Tobolsk, Tomsk, Omsk, Barnaul, and Tiumen are important commercial towns.

3. Russian Turkestan. — Russian Turkestan includes the greater part of the country between the Caspian Sea and the Altai Mountains. It contains a number

of districts called khanates, and several populous cities. Many of these khanates have been recently annexed by Russia. The native rulers are continued, but only as vassals of Russia. The inhabitants are Mohammedan Tartars.

- 4. **Georgia**, or Trans-Caucasia, has a population larger than that of Siberia. The people are said to be the handsomest in the world. Tiflis is the chief city, and has a great caravan trade with Persia.
- 5. Independent Turkestan includes those Tartar khanates that are not yet formally annexed by Russia.
- 6. **Chinese Empire.**—The Chinese Empire includes China, the dependent provinces of Mantchooria, Mongolia, Kashgaria, and Thibet.

The Chinese Empire is one of five great governments which together cover more than half of the land surface of the globe. These are, in the order of their area, the British Empire, the Russian Empire, the Chinese Empire, the United States, and Brazil.

7. **Population.**—The total population of the empire is estimated at 360,000,000, and consists chiefly of Mongols. The dependent provinces contain only about 11,000,000; all the rest are in China, five sixths of them being in the eastern half of it. This is the densest population in

the world. Nearly three millions live in boats and in floating gardens and houses on rafts in the rivers and canals.

- 8. **Government and Religion.**—The government is an absolute monarchy. The prevailing religion is Buddhism, but the state religion is Confucianism.
- 9. **Occupations.**—Agriculture, which is regarded as the noblest of employments, is the chief occupation of the Chinese. The implements used are very rude and simple.



STREET IN CHINA.

- 10. **Productions.**—Rice, tea, cotton, and silk are the great staples, and furnish the principal food, drink, and clothing. All the manufactures are the products of hand labor; those of silk and porcelain are the most valuable.
- 11. **Commerce.**—The domestic commerce of the Chinese Empire is unparalleled in extent. Its chief waterroutes are the large canals and the navigable rivers and lakes. The mountains, steppes, and deserts of the interior plateaus are crossed by caravans of camels. A great caravan trade with Russia has its depot at Maimatchin, where tea is exchanged for furs, woollens, etc. The extensive maritime commerce is mostly in the hands of foreigners.

The principal exports are tea and raw silk. The chief imports are cotton and woollen goods, opium, and wheat.

12. **Education.**—Education is compulsory. All adult males are able to read and write, and possess a knowledge of the elements of arithmetic.

Government officers of all grades below the emperor are selected by means of a public competitive examination to test their scholarship, and may be of the most humble parentage.

The Chinese are not surpassed by any people in the world in frugality and industry and in skill in their various occupations. They have possessed the mariner's compass and practised the arts of printing, silk-making, and paper-making from time immemorial. They were also very early acquainted with the manufacture of gunpowder, but did not make use of it in war.

The people are unwarlike. When not on duty the soldiers are employed in useful trades.

Among the more important public works are excellent roads, great canals, and the famous wall, more than 1200 miles long, completed B.C. 211, to keep the Mongol Tartars out of China.

- 13. No other country contains so many great cities as China. Pekin is the capital and largest city. Shanghai, the chief port, is the principal depot of the great basin of the Yang tse Kiang, and has three fourths of the foreign commerce. Han-chau, a triple city, is the great depot of internal trade. Canton is the second city in foreign trade. Fuh-chau is the chief place of shipment of black tea. Nankin is the chief seat of learning. Maimatchin is the depot of the Russian trade, and Lassa, the capital of Thibet, is the residence of the Grand Lama, or Buddhist chief-priest.
- 14. Corea.—Corea is an independent kingdom. The people are much like the Chinese in race and religion. Seoul is the capital.
- 15. **Japan.**—The Empire of Japan consists of four large mountainous islands and many smaller ones.
- 16. **Productions.**—The agricultural and manufactured products and the exports are similar to those of China.
- 17. Government. The government of Japan is a constitutional monarchy. The emperor is called the Mikado. After centuries of nearly complete exclusion, foreigners have recently been admitted to Japan. Since that time the Japanese have been quick to appreciate and adopt the arms, uniform, naval and military systems, lighthouses, steam power, and telegraph of Europeans. They surpass the Chinese in intelligence, and equal them in mechanical skill. They are of the same Mongol race, and have similar religious beliefs, but differ greatly in language and political institutions. In many respects their civilization compares favorably with that of any other nation. The elementary education of males is universal, systematic, and compulsory.

18. Tokio, known as Yedo until 1868, is the national capital and largest city, and has an extensive commerce; its port, Yokohama, is the chief depot of the foreign trade; Kioto was formerly the capital and the residence of the emperor; Ozaka, the second city, is the principal port of the domestic commerce of the empire.

Questions (I.) -1. How much of Asia is occupied by the Russian Empire? What countries does it include? What is its extent?-2. Name the principal resources of Siberia, and whence derived. What long route of inland commerce, and through what cities? What is said of Irkoutsk? What other towns?-3. What does Russian Turkestan include? How is it governed? Who are the inhabitants?-4. What is said of the population of Georgia? What is said of the Georgians? Of Tiflis?-5. What is said of Independent Turkestan?-6. What does the Chinese Empire include? Name in their order the five most extensive governments of the globe. What part of the land surface do they cover ?- 7. What is the total population of the empire? Of what race are they? How is the population distributed? What is said of the water population?-8. What

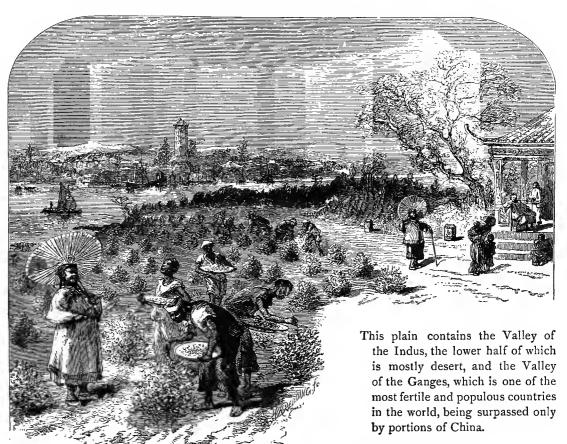
form of government in China? What is said of religion?—9. What is the principal occupation? How is it regarded? What is the character of the implements used?-10. Name the staple productions. What do they furnish? What is said of manufactures? Which are the most valuable?-11. What is said of the domestic commerce of China? 'What are its water-routes? Where are caravans employed? How is the trade with Russia conducted? Which are the principal exports? The principal imports?-12. What is said of education?-13. What is said of the cities of China? Of their population? What is said of Pekin? Shanghai? Han-chau? Canton? Fuhchau? Nankin?-14. What is Corea? What is said of its people? Of their religion? Of Seoul? Maimatchin? Lassa?-15. Of what does the Empire of Japan consist?-16. What is said of the agricultural and manufactured products and the exports?-17. Of the government? What is the emperor called? What has been the policy of the Japanese towards foreigners? What European inventions have the Japanese adopted? How do the Japanese compare with the Chinese? What is said of their civilization? Of education?—18. For what is Tokio or Yedo noted? Yokohama? Kioto? Ozaka?

(II.)—2. What is the population of Siberia? Where located? What is said of the exiles?—12. How are the government officers of China selected? For what are the Chinese distinguished? What arts have they long practised? What is said of the character of the Chinese? Of their public works?



BRITISH INDIA AND INDO-CHINA.

- 1. **British India.**—British India includes nearly all Hindostan and about one third of the peninsula of Indo-China. It is the richest and most important dependency ever possessed by any nation.
- 2. Surface. Hindostan consists of the Himalayan highlands in the north, the plateau of the Deccan in the south, and the great plain between them.



ing tea. 3. Inhat

3. Inhabitants. — The inhabitants number about 285 millions,

being about four fifths as many as in all Europe. Six sevenths are Hindoos, whose religion is Brahminism; most of the remainder are either Mohammedans or Buddhists. There are also Parsees, or Persian fire-worshippers, Jews, and European Christians, and many whose religious belief is the grossest heathenism. The greater part of the Europeans are in the British army of India.

The Hindoos have possessed a wonderfully rich poetical, philosophical, and religious literature from times long before the Christian era. British India is rapidly adopting the civilization of Europe.

- 4. **Government.**—The country is under the control of a Governor-General and a Supreme Council appointed by the British Government. The Queen of England is "Empress of India." The capital is Calcutta. The rich and populous island of Ceylon is a separate colony.
- 5. **Productions.**—The principal vegetable productions are rice and other grains, cotton, sugar, opium, indigo, jute, and spices. Rice is the principal article of food, and cotton the chief material for clothing.
- 6. **Commerce.**—The maritime commerce is chiefly with Great Britain and China, and is controlled by native and British merchants. The routes of an extensive caravan trade radiate from Hindostan to all the countries of Central and Western Asia. The most important articles of export are cotton, opium, wheat, sugar, jute, indigo,

fine fabrics of silk and cotton, and costly Cashmere shawls. Ceylon is noted for its export of coffee and cinnamon.

- 7. **Railways**, **etc.**—The principal cities are connected by railways, by means of which the cotton and other produce of the interior are brought to the ports. Nearly all the railways and telegraph lines of Asia are in British India. Steamboats ply on the principal rivers.
- 8. Calcutta, the capital and largest city of British India, is the chief commercial centre of Hindostan; Bombay is the chief cotton port; and Madras is the centre of an extensive trade. Benares, the chief seat of Hindoo learning and religion, is the most sacred city of Hindostan. Among other important cities are Lucknow, Patna, Hyderabad, Delhi, Surat, and Cashmere.
- 9. Indo-China.—Indo-China includes Burmah, now a part of British India, the native despotism of Siam, and the French dependencies of Tonquin, Anam, Cochin China, and Cambodia. The southeastern coast is called Cochin China. The interior of these countries is little known to Europeans.
- 10. **Inhabitants.**—The inhabitants resemble the Chinese in race, religion, and civilization.
- 11. **Commerce.** The foreign commerce is chiefly with China and by inland routes. The productions and exports are similar to those of Hindostan.
- 12. Bankok, a large part of which consists of houses built on floating rafts of bamboo, is the capital of Siam and the largest city in the peninsula. Hue is the capital of Anam.
- 13. The British possess parts of the west coast of the Malay peninsula, and the island and fortified city of Singapore, one of the most important ports of the East. It controls the Strait of Malacca, the chief gateway of Asiatic maritime commerce, and is the great depot for tin, which is obtained from neighboring mountains and islands. Saigon, a fortified port on the southern coast, is the capital of French Cochin China.

Questions (I.)—1. What does British India include? What is said of it?—2. Describe the surface of Hindostan.-3. How many inhabitants in British India? What portion are Hindoos? What is their religion? What other religions are found in India? With what are most of the European residents connected?-4. By whom is the country governed? What city is the capital? What island is a province of British India?-5. What are the principal vegetable productions? The chief article of food? Of clothing?-6. With what countries is the maritime commerce? What is said of the caravan trade? What are the most important exports?-7. What is said of the means of communication?—8. For what is Calcutta noted? Bombay? Madras? Benares? Name other important cities .- 9. What countries are included in Indo-China? What is the character of their governments? What name is given to the southeast coast? What is known of the interior?-10. What is said of the inhabitants?-11. Of the commerce? Of the productions and exports?-12. For what is Bankok noted? Hue?-13. What and where are the British possessions? Their port? Why important? Of what is it a depot? What other European nation has possessions in Indo-China? What and where is the capital?

(II.)—1. What two valleys does it contain? What is the character of each?—3. What is said of Hindoo literature? Of the civilization of British India?

CI.

PERSIA, AFGHANISTAN, BELOOCHISTAN, ARABIA, AND TURKEY.

- 1. Persia, Afghanistan, and Beloochistan.—Per sia, Afghanistan, and Beloochistan occupy the desert plateau of Iran, between the valleys of the Tigris and the Indus. Persia is the largest and most important. They are traversed by many high mountain ranges.
- 2. The high plateaus of the central region contain broad steppes and deserts, with many rich oases which determine the caravan routes.
- 3. Beloochistan is mostly a barren wilderness. Afghanistan is of commercial and military importance because it contains the chief routes from India to Western Asia.
- 4. Governments.— The governments are extremely oppressive. The supreme ruler of Persia is called the Shah. Afghanistan is noted for its frequent and cruel civil wars; the monarch is called the Khan. Beloochistan consists of a number of small states, under the headship of the Khan of Kelat.
- 5. Inhabitants.—The inhabitants are of various Mohammedan races, and live mostly in towns and villages. The deserts and oases have a large nomadic population, mostly robber hordes of Arabs, Turks, and Afghans. The Persians, on account of their polite manners and comparatively high civilization, are sometimes called the French of Asia.
- 6. **Exports.** Persia exports silks, woollens, shawls, carpets, and cotton, silk, and wool.
- 7. The chief cities of Persia are Teheran, the capital; Ispahan, once one of the most splendid cities of the East, but now fallen into decay; Tabriz, noted for its great trade with Russia; Bushire, the principal port on the Persian Gulf; and Meshed, the Holy City of Persia.

Kelat, the capital and chief town of Beloochistan, and Cabul, the capital and largest city of Afghanistan, Herat, and Kandahar are important as military stations and as depots of the great caravan routes.

- 8. **Arabia.**—Arabia is about one third as large as the United States. It consists of three regions: a great plateau, having many large and fertile valleys, occupies the interior; surrounding this is a broad belt of deserts, covering more than one third of the peninsula; along the coasts is a low and narrow sandy plain containing a few fertile districts.
- 9. **Government.**—The interior contains several independent states governed by despots called sultans.

About five sixths of the population live in towns and villages; the remainder are tribes of plundering nomads, called Bedouins. The heads of the tribes are called sheiks. They are nearly all subject to the sultans.

The principal state is the Nedjed, which occupies the greater part of the interior plateau. Riad is the capital and the residence of the Sultan. Muscat, the capital of Oman, is the largest city of eastern Arabia.

10. Yemen and Hedjaz, on the western coast, are provinces of the Turkish Empire. Yemen is very fertile. Hedjaz contains the holy cities of Mecca and Medina.

Mecca is the birthplace of Mohammed, and contains the Kaaba, the most sacred of mosques. It is annually crowded with caravans of pilgrims from all parts of the Mohammedan world. An immense amount of trade is at the same time carried on. The camel, "the ship of the desert," is the principal beast of burden. The horses of Arabia are famous for speed and beauty.

11. Besides the cities already mentioned are Sana; Jiddah, the port of Mecca; Mocha, noted for its coffee; and Aden, belonging to Great Britain.

The most valuable pearl fishery in the world is at Bahrein Island, near the Strait of Ormus.

- 12. Asiatic Turkey.— Asiatic Turkey is the most important part of the Ottoman Empire.
- 13. Government.—It is divided into provinces, which are governed by pachas appointed by the Sultan.

Turkey was for centuries one of the richest regions of the world. The arbitrary and oppressive nature of the gov-

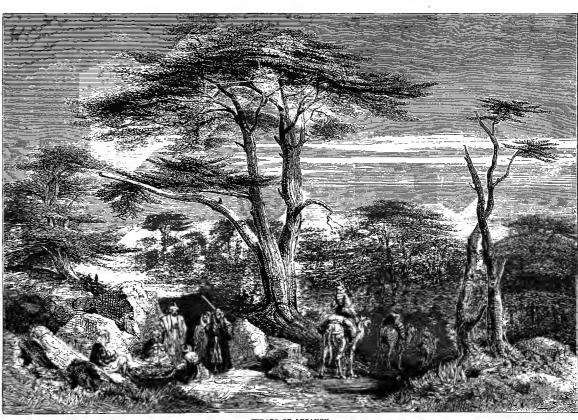
ernment has long since reduced it to utter poverty and degradation. Provinces once flourishing and densely populated are now dry and solitary wastes.

- 14. Commerce.—Maritime commerce is in a low con-The caravan trade connects the chief cities with dition. Arabia and Persia. There are few roads. Large quantities of raw silk are produced in the region of the Lebanon Mountains in the southwestern part of Asiatic Turkey.
- 15. The principal cities are Smyrna, the chief commercial city of Western Asia, noted for its exportation of figs and other dried fruits; Bagdad, the centre of the caravan trade with Arabia and Persia; Bassorah,

the chief port, near the Persian Gulf; Damascus, a depot of the caravan trade with Persia, and said to be the oldest city in the world; Beirut, the sea-port of Damascus; and Jerusalem, the sacred city of Christians, Jews, and Mohammedans. Aleppo, Brusa, and Trebizond also are important cities.

Japan, China, and India have possessed extensive commerce, books, and definite systems of religion and government from the earliest ages. For many centuries the social condition of these countries remained unchanged. Important and rapid changes are now taking place in consequence of the adoption and introduction of the railway, the telegraph, and other practical applications of the sciences and arts of Europe.

Questions (I.)-1. Where are Persia, Afghanistan, and Beloochistan? Which is the most important? By what are they traversed?-2. What is the character of the central region?-3. Of Beloochistan? Why is Afghanistan important?-4. What kind of government have these countries? What is the title of the Persian monarch? For what is Afghanistan noted? What is the monarch called? Of what does Beloochistan



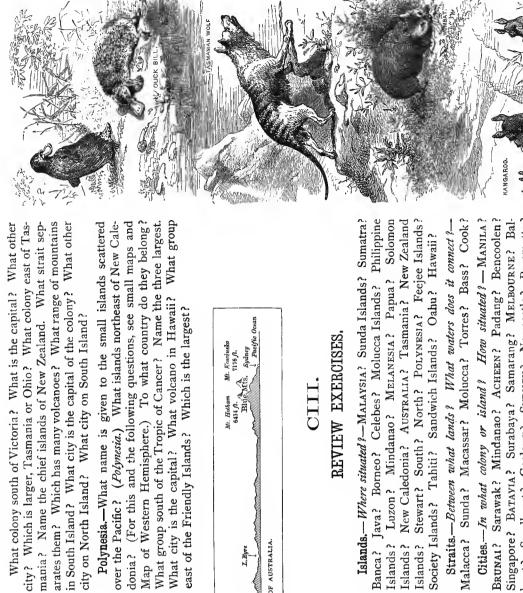
consist? Under what leadership?-5. What is said of the inhabitants? Of the population of the deserts and oases? Of the Persians?-6. What are the exports of Persia? -7. For what is Teheran noted? Ispahan? Tabriz? Bushire? Meshed? Kelat? What other caravan depots?—8. How large is Arabia? Of what does it consist? What is the interior? What surrounds it? What surrounds the whole?—9. What does the interior contain? By whom governed? Which is the principal state? Where is it? What city is the capital? What is said of Muscat?-10. Of Yemen and Hedjaz?-11. Name some other cities. For what is Bahrein Island noted?-12. What is said of Asiatic Turkey?—13. How is it divided? By whom are the provinces governed?-14. What is said of the maritime commerce? Of the caravan trade? Of the roads? Where is silk produced?-15. What is said of Smyrna? Or Bagdad? Of Bassorah? Of Damascus? Of Beirut? Of Jerusalem? What other important cities.

(II.)-9. What part of the population is not nomadic? Who are the Bedouins? To whom are the Bedouins subject?-10. For what is Mecca noted? What is said of the pilgrims? Of trade? Of the camel? Of Arabian horses?-13. What was once the condition of Turkey? What is its present condition?-15. What is said of the social condition of Japan, China, and India? What changes are now going on?

OUESTIONS ON THE MAP

mania? Name the chief islands of New Zealand.

Malaysia, -- What archipelago southeast of Asia? What seas in in Borneo? What group of islands northeast of Borneo? Name the between Sumatra and Borneo? South of Borneo? What three ports Which is the largest island? What cities long to Great Britain? What three ports in Sumatra? What island To what group do Sumatra and Java belong? What island two largest. What city on Luzon? On Mindanao? What island west of Borneo? What city and island in the Strait of Malacca beeast of Borneo? What group east of Celebes? What straits? has it?



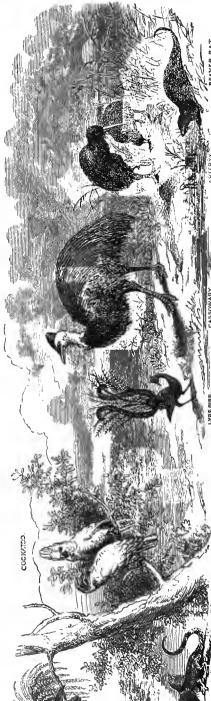
Polynesia.-What name is given to the small islands scattered over the Pacific? (Polymesia.) What islands northeast of New Cale-(For this and the following questions, see small maps and Map of Western Hemisphere.) To what country do they belong? What group south of the Tropic of Cancer? Name the three largest. What city is the capital? What volcano in Hawaii? What group east of the Friendly Islands? Which is the largest? city on North Island? What city on South Island? donia?

PROFILE SECTION OF AUSTRALIA Melanesia.-What group of islands east of Malaysia? Which is the largest island of Melanesia? What one belongs to France? Indian Ocean

Islands? Stewart? South? North? Polynesia? Feejee Islands? Islands, -- Where situated !-- MALAYSIA? Sunda Islands? Sumatra? Banca? Iava? Borneo? Celebes? Molucca Islands? Philippine Solomon Islands? New Caledonia? Australia? Tasmania? New Zealand Society Islands? Tabiti? Sandwich Islands? Oahu? Hawaii? Luzon? Mindanao? Melanesia? Papua? Islands?

Sunda? Macassar? Molucca? Torres? Bass? Cook? Straits.—Between what lands? What waters does it connect?— Malacca?

BRUNAI? Sarawak? Mindanao? ACHEEN? Padang? Bencoolen? larat? Sandhurst? Geelong? Sydney? Newcastle? Paramatta? Maitland? Brisbane? Adelaide? Perth? Hobart Singapore? BATAVIA? Surabaya? Samarang? MELBOURNE? Bal-Town? Wellington? Auckland? Dunedin? Honolulu? Cities.— Bathurst?



REVIEW EXERCISES.

In what colony or island? How situated? — MANILA?

of Melbourne? West? Southwest? What colony north of Victoria? Name its chief rivers. Its chief mountain ranges. Its capital. What

city west of Sydney? Northwest of Paramatta? What other sea-

port? What city near Newcastle? What colony north of New South

Map.) Which colony is in the southeastern part? What river forms

part of its boundary? What city is the capital? What city north

(See Political

the north? What two on the south? Name the chief mountain

ranges. Where situated? Name the chief river and its tributaries.

Name the chief lakes. Where are the Great Barrier Reefs? Name the colonial divisions of the continent.

est? (See Physical Map.) What waters surround it? What gulf on

Australia.—In which direction is the Australian continent long-

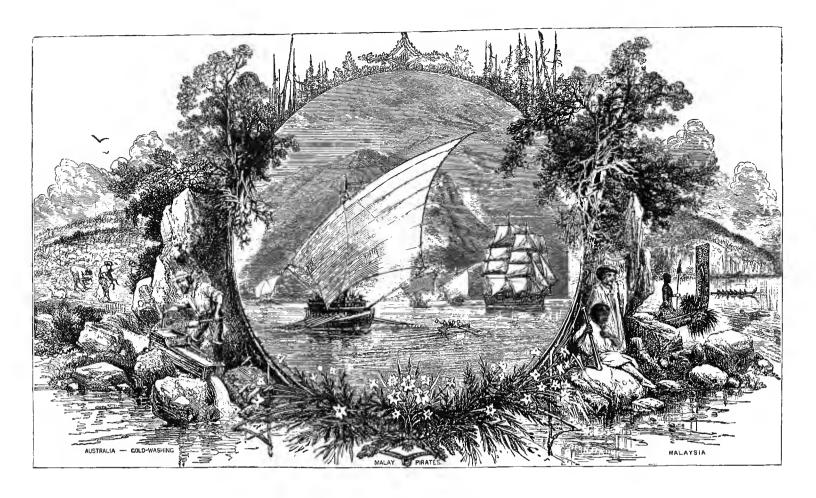
Wales? What lakes in it? What city is the capital? What colony

in the western part of the continent? What city is the capital?

Wales? What is the capital? What colony west of New South







OCEANICA.

CIV

DESCRIPTION.

- 1. **Oceanica.**—Oceanica includes all the islands of the Pacific Ocean south of the Tropic of Cancer. It consists of the great archipelagoes of Malaysia and Melanesia, the continent of Australia, together with the islands of Tasmania and New Zealand, and Polynesia.
- 2. **Malaysia.**—The population of Malaysia is about 40,000,000, or nearly five times as much as that of all the rest of Oceanica. The people are mostly Mohammedan Malays, and are brave, intelligent, and in part civilized. The climate is similar to that of the West Indies.
- 3. The Philippine Islands, the most northern group of Malaysia, belong to Spain. The capital, Manila, is a great emporium; its exports include sugar, tobacco, cigars, indigo, Manila-hemp, cordage, and hats.

Java, Celebes, the Moluccas, many smaller islands, and parts of Sumatra and of Borneo belong to the Netherlands, and are called the Dutch East Indies. They are rich in spices and tin, and, next to British India, are the most magnificent of colonial possessions. Java, the most important of these islands, contains about twenty-three millions of inhabitants. Batavia, the capital and the chief commercial depot, exports the tin of Borneo and Banca, the

pepper of Sumatra, the cloves, nutmegs, and other spices of the Moluccas and Celebes, and other tropical products.

- 4. **Melanesia.**—Melanesia, or "Land of the Blacks," is a long group of islands extending from New Guinea to New Caledonia. It is inhabited by a cannibal, negrolike race called Papuans.
- 5. Australia.— The continent of Australia and the islands of Tasmania and New Zealand are British possessions. The area of Australia is nearly equal to that of the United States, excluding Alaska. Its colonial divisions are Victoria, New South Wales, Queensland, West Australia, and South Australia, with its dependency, Northern Territory. Victoria, the most important, equals in area all the New England States, together with New Jersey, Delaware, and Maryland.

The greater part of the interior of Australia is yet unexplored. It probably consists mainly of low desert plains. The continent is nearly encircled by a rim of low mountains, the highest being on the eastern side. Between these and the almost unbroken coasts is a narrow belt of lowlands. There are but few rivers.

- 6. **Population.**—The European population is over three millions, the greater part being in Victoria and New South Wales. The original savage inhabitants are nearly exterminated.
 - 7. Government.—The colonies are politically inde-

pendent of one another, and are governed by representatives chosen by the people and by executive officers appointed by the Crown. A federation is projected.

- 8. **Climate.** The northern part of Australia has a tropical climate; the southern part is subject to sudden and great changes of temperature, and to an irregular succession of floods and droughts.
- 9. **Vegetation.** In the wooded regions the trees, which are chiefly evergreens, stand wide apart, have few leaves, and cast little shade. Some exceed in height the great trees of California.
- 10. **Animals.** Many of the native quadrupeds are pouched animals, some being as tall as a man, others no larger than a rat. Among the most singular are the kangaroo, the wombat, and the duck-bill; the last has webbed feet and a broad bill like a duck. Among the birds are the apteryx, which has no wings, and the lyrebird, the tail-feathers of which resemble a lyre.
- 11. **Productions.**—Australia produces wheat, indigo, cotton, sugar, coffee, tin, and copper. The scattered but rich grasses support many millions of sheep and cattle. It is the chief wool-growing country in the world, and is second only to the United States in the production of gold.
- 12. Commerce.—Nearly all the maritime commerce is with Great Britain, and is carried on by steamers. Railways and telegraph lines connect the two largest cities, Melbourne, the capital of Victoria, and Sydney, the capital of New South Wales, with other towns. Other important towns are Ballarat, Geelong, Paramatta, Adelaide, Brisbane, and Perth. The chief exports are wool, cotton, wheat, gold, and copper.

The Australian Colonies and New Zealand, though distant nearly half of the circumference of the globe from Great Britain, are in telegraphic communication with that country. A land line from the principal cities crosses the middle of the continent to the northwestern coast, and is continued by an ocean cable to British India. Other lines and cables connect this latter country with London. A line of ocean steamers, plying between Australia, the Feejee and Sandwich Islands, and San Francisco, connects the commercial system of the United States with that of Australia.

13. Tasmania and New Zealand are very mountainous. The productions of Tasmania are similar to those of Australia. The capital is Hobart Town.

New Zealand is a little larger than Great Britain. Gold, wheat, and New Zealand flax are the chief exports. Wellington is the capital.

14. **Polynesia.**—Polynesia consists of many thousands of small oceanic islands situated in the Pacific Ocean and within the Torrid Zone.

These islands are mostly in parallel chains, and appear to be the tops of mountain ranges whose bases are deep in the ocean. If the mountain is entirely below the sea, the island usually consists of an irregular oval ring or reef of coral, enclosing a lagoon, having one or more openings to the sea, and crowned with cocoanut-palms and bread-fruit and other trees. Such an island is called an atoll; many hundreds of atolls sometimes constitute a single group.



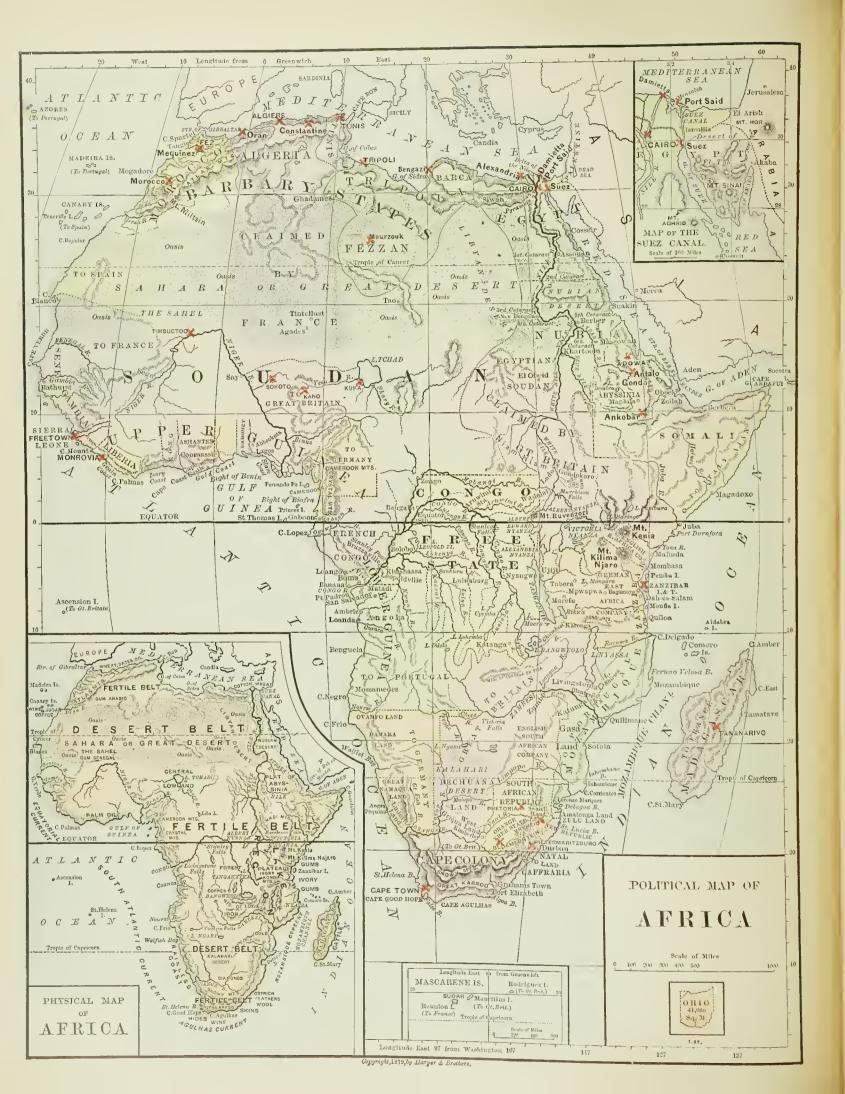
CORAL ATOLL

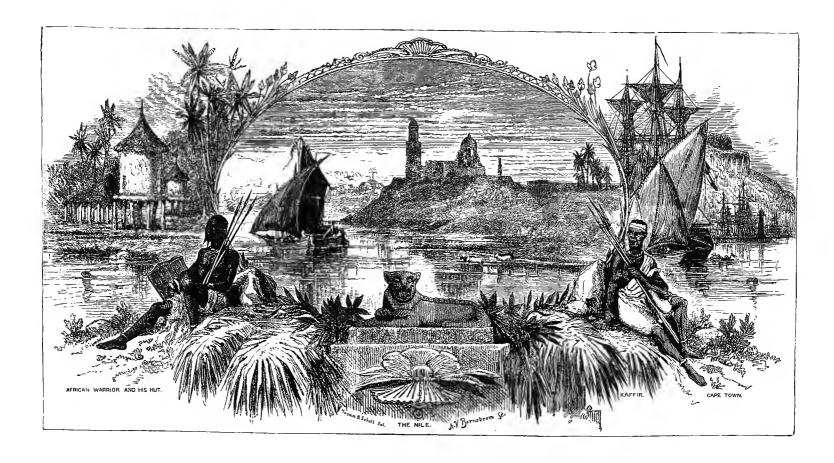
- 15. The Polynesians are mostly Malays and Pagan savages. The Sandwich Islands, Tahiti, the Feejee Islands, and the Samoan Islands have become Christian states.
- 16. The Sandwich Islands, the most important group, produce sugar and cotton of an excellent quality. They contain many volcanoes; one of these, Mauna Loa, has the largest crater in the world; its black lava wall encloses a lake of fire. The government is a limited monarchy. The capital, Honolulu, is an important port.

Note.—The trade of the United States with the countries on the shores of the Pacific Ocean and with the islands scattered over its surface is rapidly growing in importance. From some of these islands the exports are already large in quantity and of great value. No other equal area of land surface on the globe is capable of yielding a larger amount of sugar, cotton, and other tropical products, and no people are so well situated to engage in this commerce as those occupying the western coast of the United States.

Questions (I.)-1. What does Oceanica include? What great archipelagoes? What continent? What islands? What other division?—2. What is the population of Malaysia? Of what race and religion? Of what character and social condition? What is said of the climate?--3. What islands belong to Spain? What is the capital? What is said of it? What are the exports? What islands belong to the Netherlands? What is said of them? Of Java? Of Batavia?-4. What is Melanesia? By whom inhabited ?-5. To what country do Australia, Tasmania, and New Zealand belong? What is the area of Australia? Name its colonial divisions. What is said of the area of Victoria?-6. What is said of the European population of Australia? Of the original inhabitants?-7. How are the colonies governed?-8. What is the climate of Australia?-9. What is said of the trees of Australia?-10. Of the native animals? -11. Of the productions? Of the sheep and cattle? Of wool? Of gold?-12. How is the maritime commerce conducted? With what country? What are the means of internal communication? Name the important towns. What are the chief exports?-13. What is the character of the surface of Tasmania and New Zealand? What are the productions of Tasmania? Its capital? What is the size of New Zealand? What are the chief exports? What city is the capital?-14. Of what does Polynesia consist?—15. Of what race are the Polynesians? In what social state? What three important exceptions?—16. What is said of the Sandwich Islands? Of their volcanoes? Government? The capital?

(II.)—5. What is said of the interior of Australia? Of the mountains? Of the lowlands? Of the coasts? Of the rivers?—12. How do the Australian colonies communicate with Great Britain? How is the commercial system of Australia connected with that of the United States?—14. How are the islands arranged? What do they seem to be? What is an atoll?





CV.

QUESTIONS ON THE MAP.

In what zone is most of the continent of Africa? (See Physical Map.) What waters surround it? What cape at the northern extremity? At the eastern? The southern? The western? Near Cape Agulhas? What great island is nearly parallel to the eastern coast? What channel between them? What mountains parallel to the southern coast? To the Mediterranean Sea? East of the Gulf of Guinea? What desert is crossed by the Tropic of Cancer? By the Tropic of Capricorn? What river in the northeastern part of Africa? Name its three principal branches. What plateau is partly drained by the Blue Nile? What lakes by the White Nile? Name other lakes in the Lake Region. What river flows into the Mozambique Channel? What rivers flow into the Atlantic Ocean? What islands northwest of Madagascar? East of Madagascar? (Mascarene Islands.) Name the two largest. What solitary islands in the Atlantic Ocean south of the Equator?

What general name is given to the countries forming the northwestern border of Africa? (See Political Map.) Name the Barbary States. What country occupies the northeastern part of Africa? What country to the south is claimed by Egypt? What country southeast of Nubia? What countries border on the Indian Ocean? What British colonies and dependencies (see text, p. 119) in Southern Africa? What three republics? What general name is given to the western coast north of the Equator? South of the Equator? To the country south of Sahara? What countries west of Upper Guinea? What country occupies the centre of Equatorial Africa?

What city is the capital of Egypt? At the western mouth of the Nile? At the eastern mouth? What name is given to the triangular

piece of lowland having Cairo, Alexandria, and Damietta at the angles? (The Delta, from its resemblance to Δ, the Greek letter D.) What towns on the Suez Canal? What cities in Abyssinia? What is the capital of Zanzibar? On what island? What is the capital of Madagascar? Name the capitals of Cape Colony and Natal. Of Orange Free State. Of the South African Republic, or Transvaal. Of the New Republic. Of Liberia. Of Sierra Leone. What city is the capital of Morocco? What city southwest of Fez? What cities in Algeria? What is the capital of Tripoli? Of Tunis? Of Fezzan? Barca?

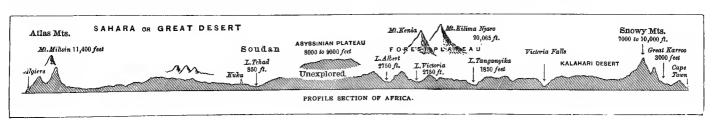
CVI.

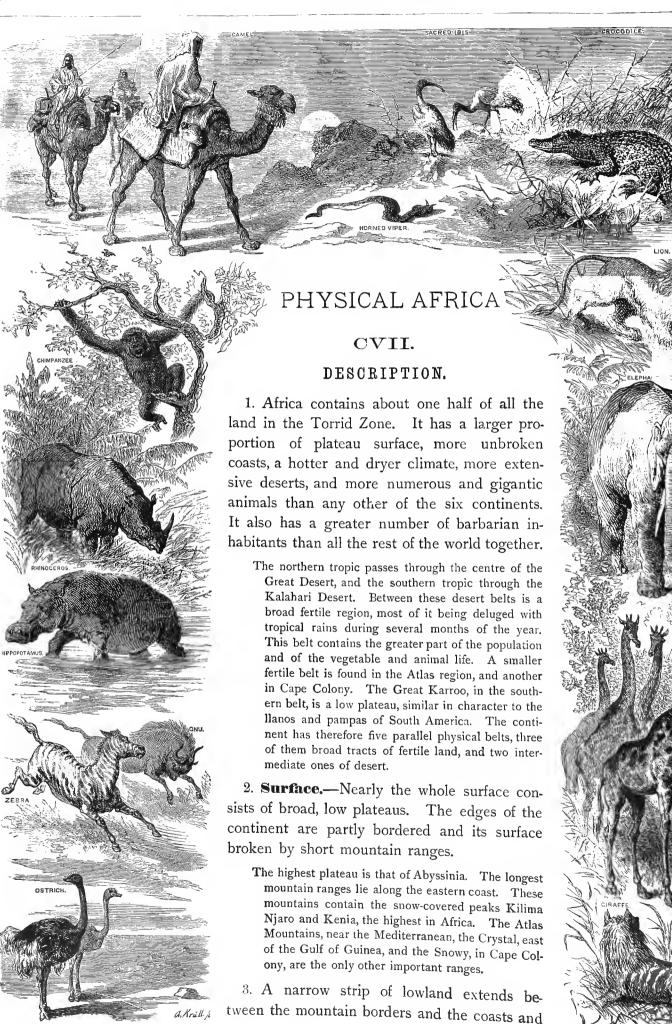
REVIEW EXERCISES.

Principal Divisions and Subdivisions. — Where is it? — Barbary States? Morocco? Algeria? Tunis? Tripoli? Barca? Fezzan? Egypt? Nubia? Egyptian Soudan? Abyssinia? Zanzibar? Mozambique? Cape Colony? Natal? South African Republic, or Transvaal? Orange Free State? New Republic? Upper Guinea? Senegambia? Sierra Leone? Liberia? Lower Guinea? Sahara? Soudan?

Rivers.—Where does it rise? In what direction does it flow? Into what body of water?—Nile? White Nile? Blue Nile? Atbara? Zambesi? Orange? Congo? Niger?

Cities. — In what part of the country? How situated? — CAIRO? Alexandria? Damietta? Port Said? Suez? Gondar? Adowa? Antalo? Ankobar? Zanzibar? Tananarivo? Bloemfontein? Cape Town? Pietermaritzburg? Pretoria? Vryheid? Monrovia? Free Town? Fez? Morocco? Mequinez? Algiers? Constantine? Oran? Tunis? Tripoli? Mourzouk? Bengazi? Timbuctoo? Kano? Sokoto? Kuka?





along the southern base of the Atlas. The only other lowland lies near the centre of the continent.

4. The coast is remarkable for the deadliness of the climate and for the small number of islands, peninsulas, gulfs, and navigable rivers.

The entire northern coast has but one large river, the Nile; the eastern, the Zambesi; the western, the Niger, the Congo, and the Orange. A group of great fresh-water lakes lies upon the east-side of the continent, some of which are connected with the Nile, others with the Congo. Lake Tchad lies in the central lowland. The Victoria Falls in the Zambesi River are exceeded in grandeur only by those of Niagara. In the extreme south is the Kalahari Desert.

5. **Vegetation.**—Except in the middle belt, Africa is comparatively deficient in vegetation. The tropical forests, though covering a large part of the central belt, are less dense and less extensive than those of South America. Among the most useful trees are the oil-

palm of Guinea, the date-palm of the Barbary States and the oases, and the acacia, which supplies the gumarabic of commerce.

6. Animals.—Among the animals of the central belt are the elephant, rhinoceros, lion, hippopotamus, giraffe, chimpanzee, and gorilla; in other parts of the continent are the gnu and other antelopes, the zebra, and the hyena. The ostrich and the sacred ibis are remarkable among birds, and the crocodile and the horned viper among reptiles.

Questions (I.)—1. What part of the land of the Torrid Zone is in Africa? For what is Africa remarkable among the continents?—2. What is the character of the surface of Africa?—3. Where are the lowlands?—4. What is said of the coast?—5. Of the vegetation?—6. Of the animals?

(II.)—1. What circle passes through the Great Desert? Through the Kalahari Desert? What lies between these desert belts? What does this fertile belt contain? What two other fertile belts? What is the relative position of these belts?—2. Which is the highest plateau? Where are the longest mountain chains? What peaks do they contain? What other important ranges?—4. What is said of the rivers? Of the lakes?

POLITICAL AFRICA.

CVIII.

DESCRIPTION.

- 1. **Population.**—The population of Africa is estimated at 164 millions. The inhabitants of the Sahara and the countries north and east of it are mostly of the Caucasian race, though much darker than Europeans. The negro race occupies nearly the whole continent south of the Sahara, and forms much the greater part of the population.
- 2. **Government.**—All the native governments are despotisms, and, except in Egypt and the Barbary States, are of the rudest and simplest description.
- 3. **Commerce.**—The limited commerce of Africa is in the hands of the white race. Caravans cross the Great Desert from the Barbary States by the lines of oases, and barter European and Asiatic manufactures for the gold, gums, ivory, and ostrich feathers of Central Africa. Similar articles from the interior are brought to the eastern and western coasts. The Suez Canal and the Alexandria and Suez Railway are a part of the commercial systems of Europe and Asia.

Questions.—1. What is the population of Africa? How is it distributed?—2. What is said of the native governments?—3. What race controls the commerce of Africa? Describe the caravan trade. To what commercial systems do the Suez Canal and Railway belong?

CIX.

CAUCASIAN AFRICA.

- 1. Egypt.—Egypt and its dependencies, Nubia and part of Egyptian Soudan, occupy the Valley of the Nile from the Equator to the Mediterranean. Egypt pays tribute to Turkey, but is really under English protection.
- 2. **The Nile.**—The heavy tropical rains in Abyssinia and farther south cause the Lower Nile to overflow its banks from June to December.

The water slowly rises for three months, and as slowly subsides, leaving a narrow river for the rest of the year. A belt of low land from one to seven miles wide, crossing the desert region from the mountains to the sea, is thus alternately a continuous lake and a broad green ribbon of grasses and cotton. Not a single stream joins the Nile for the last 1200 miles of its course, rain being almost unknown except in the Delta.

This remarkable valley was for thousands of years the seat of a powerful empire, famous for its wealth, industry, learning, and skill in the arts. The pyramids and temples of ancient Egypt have been preserved by the dry climate, and are the most stupendous and magnificent ruins in the world.

In 1882, an armed rebellion against the Egyptian government was suppressed by a British army which still occupies the country, to "protect" the vast political, colonial, and commercial interests of the British Empire dependent upon the Suez Canal.

- 3. **Government.**—The government is a despotism. The chief ruler is called the Khedive, or Viceroy.
- 4. **Commerce.**—Alexandria and other cities export large quantities of cotton, cotton seed, grain, and sugar.

The Suez Canal, chiefly owned and controlled by English and French capitalists, is the most important maritime trade route in the world. It admits the largest steamships, and connects the commerce of Europe with that of southern and eastern Asia. Alexandria, Cairo, and Suez are connected by a railway.

5. **Population.**—The population of Egypt is about seven millions: of its dependencies about nine millions.

Most of the people of Egypt are of Arab descent; the remainder are Berbers and other African tribes, with a small number of Copts, who are descended from the ancient Egyptians. Of the Turks, the ruling class, there are about 20,000. Mohammedanism is the prevailing religion.

- 6. Cairo, the capital, is the largest city in Africa. Alexandria is the second city and largest sea-port. Port Said and Suez are at the ends of the great canal.
- 7. **Barbary States.**—The Barbary States are Morocco, Algeria, Tunis, Tripoli, and Barca.

The Barbary States are so called from the Berbers, a pastoral and agricultural people occupying the Atlas region. The other principal races are the Moors, the Arabs, the Turks from Asia, and the French from Europe; all but the last are Mohammedans.

The fertile valleys and slopes of the Atlas are called the "Tell," or Grain Country. South of the Tell is the Sahara, or Country of Oases; it abounds in dates. The name Sahara is also given by European geographers to the Great Desert.

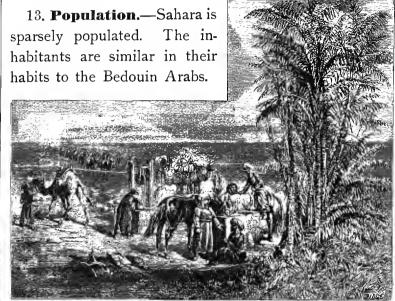
- 8. Morocco.—Morocco derives its name from the Moors. It is a semi-barbarous country, governed by a sultan. It exports wool, hides and skins, wheat, and almonds. Fez, the largest of its three capitals, is the western depot of the caravan trade between Europe and Central Africa.
- 9. **Algeria.**—Algeria is a province of France. It exports grain, dates, cotton, indigo, and sugar. The chief cities are Algiers, the capital, Constantine, and Oran.

Europeans form but a small part of the population, and are mostly in the sea-port towns. The rest of the inhabitants are about equally divided between the Berbers of the Tell and the Arabs of the Sahara, which here contains many small oases.

- 10. Tunis.—Tunis and Tripoli are dependencies of the Turkish Empire. They export olives, oil, grain, and dates. Fezzan and Barca are dependencies of Tripoli. Tripoli, the capital of Tripoli, has a large caravan trade with Central Africa. Tunis is occupied and "protected" by the French.
- 11. Sahara.—The Sahara is the most extensive desert on the globe.
 - It is the western portion of the desert belt that extends from China to the Atlantic Ocean. It consists of rocky plateaus and mountain ridges, separated by broad tracts of gravel or shifting sand. Rain falls during certain parts of the year in the mountain regions, and oases occupy the low and moist spots. In the higher plateaus the people are said to wear furs in the winter. The general climate is intersely hot.

12. A line of oases from Tripoli through Mourzouk in Fezzan to Lake Tchad is the principal caravan route.

This line divides the Sahara into two parts. The western, called the "sahel," or "plain," is sandy, and has few oases; it furnishes Soudan with salt. The eastern is the Libyan Desert, and has many oases. East of the Nile is the Nubian Desert.



THE EDGE OF THE DESERT.

14. **Abyssinia.**—Abyssinia is the most elevated country in Africa. Many of its mountain peaks are covered with snow during the greater part of the year. The country has but little commerce, and is under the influence of Italy. Gondar, Adowa, Antalo, and Ankobar are the chief cities.

Questions (I.)—1. Where are Egypt and its dependencies situated? Name the dependencies. Of what empire is Egypt a part?—2. How do the tropical rains affect the Lower Nile?—3. What is the government?—4. What are the exports? What is said of the Suez Canal? What railway in Egypt?—5. What is the population of Egypt?—6. What city is the capital? For what is Alexandria noted? Where are Port Said and Suez?—7. Name the Barbary States.—8. From what does Morocco derive its name? What is its social condition? Its government? Its exports? Its chief trade centre? Its principal capital?—9. Of what country is Algeria a province? What are its exports? Its capital and other cities?—10. What is said of Tunis and Tripoli? What are their exports? What is said of Fezzan and Barca? What is the capital of Tripoli? For what is it noted?—11. How does the Sahara compare with other deserts?—12. Where is the great line of oases?—13. What is said of the population of Sahara?—14. Which is the most elevated country in Africa? What is the social condition of the country? Name the chief cities.

(11.)—2. Describe the effect of the tropical rains upon the Lower Nile. For what was ancient Egypt remarkable? What is the present condition of the country? In what respect does it resemble Europe?—5. To what races do the people belong? Who are the ruling class? What is the prevailing religion?—7. Why are the Barbary States so called? What are the other principal races? Of what religion are they? Where and what is the Tell? The Sahara?—9. What part of the population of Algeria is European? Who are the rest of the inhabitants?—11. Of what is Sahara a part? Of what does it consist? What and where are the oases?—12. How does the line of oases divide the Sahara? What is said of the western part? The eastern part? What other desert east of the Nile?

CX.

NEGRO AFRICA.

1. Coast Regions and Climate.—The greater part of the lowlands along the western and eastern coasts has a hot, moist climate. North

of the mouth of the Orange River the coast for seven hundred miles is entirely desert.

2. Colonies.—Under various names, such as colony, dependency, protectorate,* occupation, and "sphere of influence," all of them terms implying greater or less pretensions to exclusive possession, nearly the whole sea-coast of Africa and a very large part of the interior are claimed by certain great maritime nations of Europe, whose necessities impel them to seek new sources of raw material, and new markets for manufactured products. Steamers are multiplying on the great rivers and lakes of the interior, and, with a slowly developing system of adjunct railways, are gradually making these regions sure to those who thus claim them.

The only countries of Africa yet remaining absolutely independent are as follows: Morocco, on the Barbary coast; Liberia, a republic of negroes from the United States, on the western coast; and, in the interior, parts of Soudan and the Sahara; and Orange Free State.

As for the rest of the continent, Tripoli and its dependencies, Barca and Fezzan, belong to Turkey; France has annexed Algeria, "protects" Tunis and the great island of Madagascar, holds as colonies Senegambia, parts of the Ivory and Slave Coasts, the Gaboon, and a large part of the Congo region; Obock on the Gulf of Aden, and the Comoro Islands, and "influences" a large part of the Sahara. Total area about 2,800,000 square miles.

Italy holds districts on the northeast coasts and "influences" Abyssinia. Germany has annexed Cameroons and other parts of the Upper Guinea coast; Damara Land and Luderitz Land on the southwestern coast, with a vast interior; and on the eastern coast "protects" the southern half of Zanzibar and "influences" the immense territories of the German East Africa Company; a total of at least 800,000 square miles. Portugal claims as colonies nearly the whole of Lower Guinea, all of Mozambique, together with the Madeira, Cape Verde, and other islands; total area about 900,000 square miles. Spain has as colonies the Canary and other islands, and has annexed the greater part of Sahara coast and the adjacent interior; area, 240,000 square miles.

Great Britain has Sierra Leone, a colony of negroes rescued from slave ships; the Gold Coast, a colony and protectorate; Lagos Colony; and the Niger District, a protectorate; all on the western coast; in South Africa, Cape Colony and its numerous dependencies and neighbors, namely, Caffraria, Basutoland, Bechuanaland, a protectorate; "influences" a vast interior or "hinterland," extending northeastward to Lakes Tanganyika and Nyassa; and Walfish Bay; Natal Colony and Zululand, a protectorate; "protects" the northern half of Zanzibar, including its island capital, and "influences" the hinterland to the northwestern confines of the Nile Valley; the island of Socotra is a dependency; and Egypt is "occupied." Exclusive of the last the area claimed is at least 2,300,000 square miles.

Congo Free State is "protected" by many nations. Area about 1,000,000 square miles.

- 3. Exports.—The principal exports from the eastern and western coasts, Soudan and the Congo region, are palm-oil, gums, India-rubber, spices, sugar, ivory, ostrich feathers, and gold; from the southern coasts wool, hides, tallow, ostrich feathers, and diamonds.
- 4. Soudan.—Soudan is a broad, fertile belt crossing the continent south of the Great Desert. The principal cities are Kano, Sokoto, Kuka, and Timbuctoo. They have a great caravan trade to the Mediterranean coasts.
- * In a protectorate the native ruler is continued, but a foreign "resident," with a "military escort," is stationed at the court.

- In its heavy tropical rains, extensive forests, fertile soil, and great heat, Soudan somewhat resembles the selvas of the Amazon. It contains a large number of populous, semi-barbarous states.
- Most of the inhabitants are Mohammedans, the rest Pagans. The religion of the Pagan negroes combines a belief in evil spirits, witchcraft, and magic charms, and is known as Fetichism.
- 5. Free-Trade Zone.—The Free-Trade Zone is a broad belt of country of irregular width crossing Equatorial Africa from ocean to ocean. Its area is more than 2,000,000 square miles. It is open to the trade of all nations.

Congo Free State.—Congo Free State is a part of the Free-Trade Zone. It includes nearly the whole valley of the Congo and its tributaries. It is inhabited by barbarous tribes of Pagan negroes.

It was organized in 1885 as a government international in character, and having for its chief objects the extinction of the slave-trade and the extension of legitimate commerce and of civilization. All maritime nations participate in its trade, and many of them are under obligation to protect it.

Within the last few years the vast and hitherto unknown interior of Africa has been explored with unparalleled rapidity. Of the many illustrious explorers the most celebrated are Livingstone and Stanley.

In 1871 Livingstone reached Nyangwe, a central Arab slave-trading station on Lualaba River. In 1876 Stanley passed down the Lualaba from this point in boats, and reached the Atlantic in 1877. His exploration proved the Lualaba to be the Congo, a small part of whose lower course had long been known. In volume of water discharged and in number of miles of internal navigable waters the Congo system is probably surpassed only by that of the Amazon.

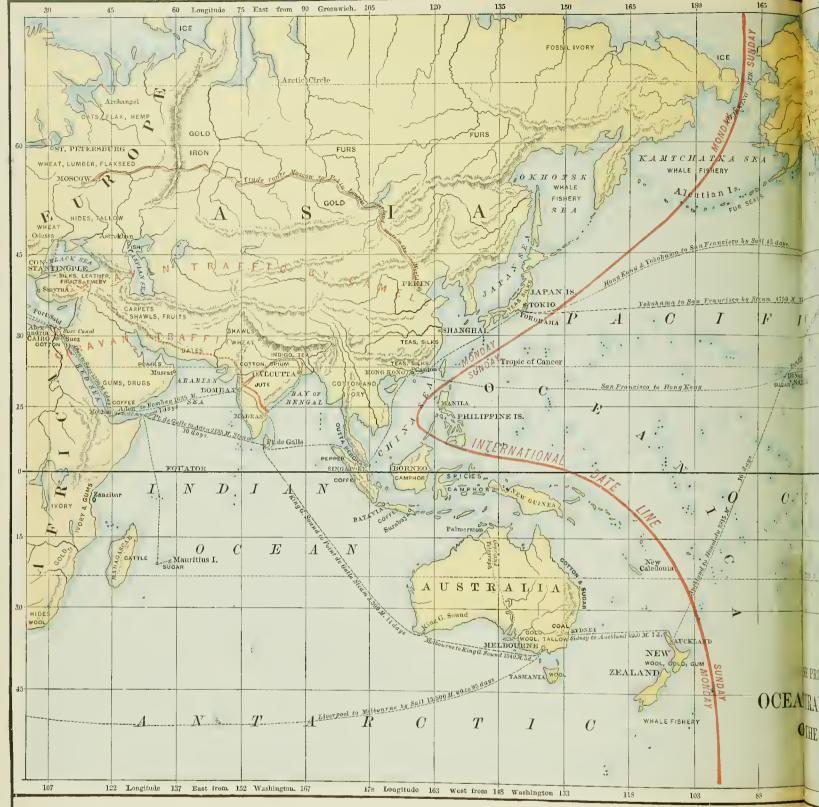
The "International Association for the Exploration of Africa" was established in Europe in 1876. It sent out many expeditions, chiefly from the eastern coast, and purchased of the natives certain rights and privileges, including sites for trading stations. Stanley's discovery showed that the Congo is a great water-way to the very heart of Africa. This led to the International Congo Conference of the great maritime nations at Berlin in 1886. An immense but irregular belt of territory stretching across the continent was declared to be a Free-Trade Zone, open to the commerce of all the world. It contains at least 40 millions of people. The rights of the International Association to a portion of the Zone were recognized and its territory formally outlined and established as the Congo Free State. The King of the Belgians, the head of the Association, was declared to be the sovereign. The capital is Brussels in Europe, with a local capital at Leopoldville, on the Congo. The area of the state is about half that of the Free-Trade Zone; population estimated at 15 millions. Only a few stations are as yet occupied.

6. African Islands.—Madagascar, a French protectorate, is about equal in area to the five North Central States of the United States. The government is a despotic monarchy. The capital and largest city is Tananarivo. Tamatave, the chief port, exports cattle and rice.

Mauritius, belonging to Great Britain, exports sugar, and is a stopping-place for vessels crossing the Indian Ocean. Reunion, or Bourbon, is a French colony.

The Atlantic Islands are of small size, and are precipitous, volcanic rocks. St. Helena and Ascension belong to Great Britain. The Cape Verde and the Madeira Islands, belonging to Portugal, and the Canaries, belonging to Spain, export wine, sugar, and coffee.

Questions (I.)—1. What is the character of the climate of the eastern and western coasts of Africa? What long desert coast?—2. What is said of the claims of European nations? What countries are yet independent? What countries are claimed by Turkey? By France? Italy? Germany? Portugal? Spain? Great Britain?—3. What are the chief exports of Africa?—4. What is Soudan? Mention its chief cities. With what coasts do they trade, and how? What does Soudan resemble? What does it contain? Of what religions are the inhabitants of Soudan?—5. What is the Free-Trade Zone? The Congo Free State? Give an account of their origin.—6. To what states is Madagascar equal in surface? What is the government? Which is the capital city? The chief port? Its exports? What is said of Mauritins? Of Reunion? What is the character of the Atlantic Islands? To what countries do they belong? What are their exports?



QUESTIONS ON THE MAP.

Name the chief Atlantic ports of North America. Which one is the most important? What ports on or near the Gulf of Mexico? Name the chief Pacific ports of North America. Which is the most important? Which are the two chief river-ports of the St. Lawrence? Of the Mississippi?

Which is the most northwesterly port of South America? (79*) What port near the eastern extremity of South America? What ports between Colon and Pernambuco? Between Pernambuco and Cape Horn? Name the principal Pacific ports of South America. Which one is farthest north? Near what Caribbean port is it? By what are they connected? (80)

* The numbers in this lesson refer to pages in the book where the answers may be found.

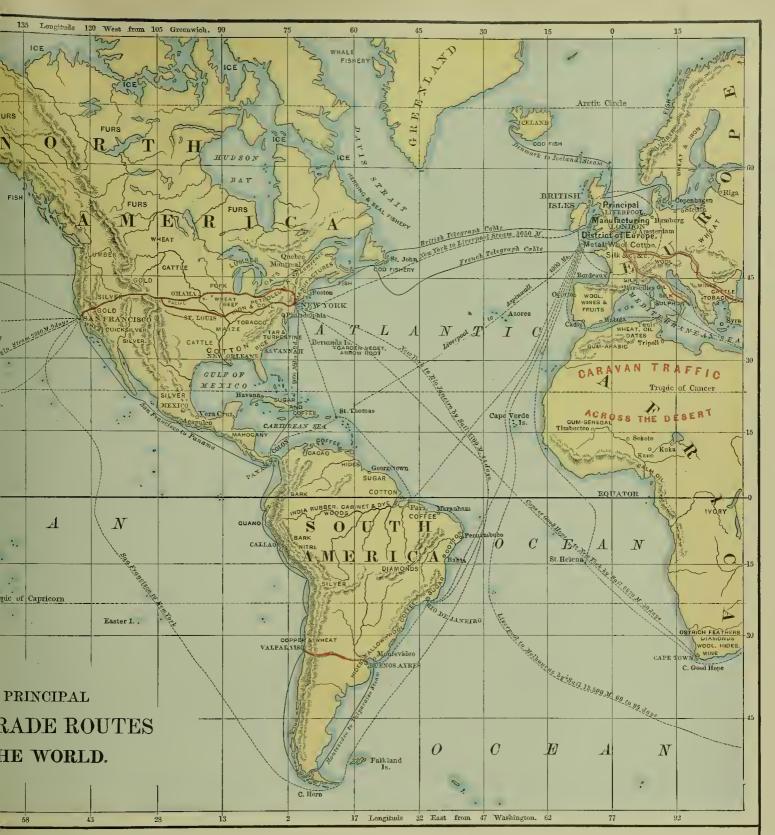
Name the two principal ports of the British Islands. For what is the port of London remarkable? (91) What ports in Ireland? (89) In Scotland? (89) Which is the chief port of the north of France? (92) What ports of Europe are on or near the North Sea? (87, 92) On or near the Baltic? (87, 92). In Iceland? (87) Name the chief ports of Europe between the Strait of Dover and the Strait of Gibraltar. (92) Name three Spanish ports on the Mediterranean. (92) Name the chief French port. (91) The chief Italian ports. (92) In Sicily. The chief port of Austria. (96) Of Greece. (96) Of Turkey. (92) What port on the White Sea? (87)

Name the chief Mediterranean ports of Africa. (114) The Atlantic ports. (114) What port near the southern extremity of Africa? What ports on the eastern coast? (114) At the ends of the Suez Canal? (114)

What Asiatic ports are on the Mediterranean Sea?

(102) The Red Sea? (102) Persian Gulf? (102) Arabian Sea? (102) On or near the Bay of Bengal? (102) The China Sea? (102) What Pacific ports of Asia are north of Canton? (102) Name the chicf ports of Australia. Tasmania. (111) New Zealand. The Indian Archipelago. The Sandwich Islands.

Where is the chief manufacturing district of Europe? Of North America? What European port has a very large trade with the United States? (91) What are the principal exports from New York to Liverpool? (64, 90) How do these articles reach New York? (34, 42, 64, 65) From what parts of the United States does most of the wheat come? Of the maize? Cotton? Tobacco? Provisions? Petroleum? Gold? Silver? Why does not New York export dry-goods and iron to Great Britain? (90) What other ports of the United States have an important share of the foreign trade? (34)



re the chief cotton ports? (New Orleans, Gallobile, Savannah, Charleston, Norfolk, and New The chief grain ports? (New York, Boston, bhia, and Baltimore.) What are the chief exm Liverpool to the United States? (34) Name les of commerce between French ports and the United States. The German ports. Russ. Spanish. Italian. Turkish. Greek.

amer from London to Smyrna, with an assorted teles at Cadiz, Gibraltar, and the leading ports diterranean: what classes of articles will probabilistitute the chief part of her cargo? The same dis from Smyrna to New York, stopping at the anean ports: what articles will she probably She then sails from New York for London: her cargo now probably be?

amer from New York to Rio Janeiro touches at

St. Thomas, W. I., and other intermediate ports: what articles is she likely to carry out?* To bring back? Why not cotton? What cargoes from New York to Montevideo and Buenos Ayres? What return cargoes?

How far by steamer from New York to Colon? To New Orleans? At what port do New York and New Orleans steamers touch? (Havana.) Name the chief exports of western South America.

What are the chief exports of San Francisco? Where is most of the gold and silver sent? (To New York and China.) Of the wheat and flour? (To England.) With what Chinese ports has San Francisco an important trade? What Japanese ports? With what ports of Australia? New Zealand? Sandwich Islands? South

* Remember that the manufactures of nearly all countries except those of Western Europe, Eastern North America, and Eastern Asia are very limited. America? Mexico? Why does the steamer-route from Yokohama to San Francisco differ from the route by sail? Whence does San Francisco import most of its coal? (Australia and British Columbia.) Name six of the chief cities on the great railroad routes between San Francisco and New York. (66, 67)

What are the chief exports of Tasmania, New Zealand, and Australia? To what country? What articles are probably imported in return?

Where are the chief whale fisheries? Seal fisheries? Cod fisheries? Other fisheries? Whence are the chief supplies of ivory? Ostrich feathers? Gums? Drugs? Opium? Teas? Tobacco? Silk? Cotton? Coffee? Sugar? Jute? Pepper? Flax-seed? Wheat? Maize? Hides? Furs? Silver? Gold? Copper? Iron? In what parts of the world is traffic still carried on by caravans?

PHYSICAL GEOGRAPHY-GENERAL REVIEW.

How is the earth known to be a globe? What has caused it to be flattened at the poles? What is the length of the polar diameter? Of the equatorial diameter? Of the circumference? Describe the general physical condition of the earth. (Ans. The earth is by many supposed to be a slowly cooling and shrinking ball of matter, which was once entirely in a molten state. Its cooled and hardened crust is comparatively thin, and is the surface upon which we live. Mountain ranges are the folds, ridges, and lines of fracture of the crust. The broad hollows of the surface are partly filled by the ocean. Volcanoes are openings to the still melted interior of the earth, and are mostly found upon the lines of fracture.) What evidences have we of the heat of the interior of the earth? (Ans. Volcanoes, hot-springs, earthquakes, and the gradual increase of heat with the depth in deep borings and mines.)

Name the two great land masses. What is the position of the line of direction of each? How many continents in each? What separate continent is there? Name the six continents in the order of their size. How are most of the islands arranged? How many classes of islands are there? What are continental islands? Where are the principal chains? What are oceanic islands? Where are the principal chains? What are volcanic islands? Coral islands? Where chiefly found? Name two of each class of islands.

What is a mountain system? Where is the longest system in the world?* What is its direction? Where is it highest? Name the principal mountain chains of North America. Of South America. Where is the chief mountain system of the Old World? Where is it highest? Name the principal mountain chains of Asia. Of Europe. Of Africa. Of Australia. Where are most of the volcanoes of North America? In what countries? Where are the volcanoes of South America? What island chains of Asia abound in volcanoes? What can you say of the volcanoes of Malaysia? (Ans. They are more numerous than in any other equal area in the world.) What volcanoes complete the "fire circle" of the Pacific? (Ans. Those of Melanesia and New Zealand.) What oceanic islands of the Pacific contain volcanoes? Which has the greatest crater in the world? What volcanoes are in the Mediterranean Sea? In Iceland?

What is a plateau? Which continent has the greatest proportion of plateau surface? Which the least? Where are the great plateaus found in each continent? Describe the great plateau belt of North America. How high is it? What great mountain system rests upon it? Through what countries does it extend? Describe the Eastern Highland. What mountain system does it contain? Name some of the ranges. Where is the highest plateau belt of South America? What countries lie wholly or partly in it? In which is it highest and broadest? How high is it? What mountain system rests upon it? In what country is the broadest plateau of South America? Is it high or low? What mountains does it contain? Where is the chief highland belt of Europe? What countries lie wholly or partly in it? Which are its chief mountain chains? For what are the plateaus of Asia remarkable? In what parts of the continent are they? Name some of them. Which is the highest? How high is it? What mountain chains rest upon these plateaus? Which is the highest plateau of Africa? What mountains rest upon it? What can you say of the plateaus of Australia?

What is a lowland plain? Where is the great low plain of North America? By what is it divided? Into what two plains? Which way does each plain slope? How can you tell this by the map? What plain east of the Appalachian Mountains? Where is the great low plain of South America? Name its three principal divisions. What countries lie wholly or partly in each? Describe the llanos. The selvas. The pampas. Where is the great plain of Europe? What mountain walls partly enclose it? What countries lie wholly or partly in it? What other plains in Europe? In what countries? Where is the great lowland plain of Asia? With what other plain connected? What countries are in it? What great lakes in its western part? What plains in other parts of Asia? For what are the plains of China and Hindostan remarkable? In what part of Africa are the plains?

Name the five chief divisions of the ocean. Which are the three great oceans? Which is the largest? For what else remarkable? The Atlantic? The Indian? The Arctic? The Antarctic? Name the chief islands, border seas, and gulfs of the Pacific. Of the Atlantic. Of the Indian. From what level are all heights estimated? What can you say of it? (Ans. After allowing for the temporary effects of tides, winds, etc., the surface of the sea stands at the same level in all parts of the world.) What are ocean currents? What can you say of their extent? Of their causes? Name some of the principal currents. Of what use are they? Describe the equatorial currents. The Gulf Stream. The Japan Stream. The polar currents.

How high does the atmosphere extend? Where is it most dense? Why? At what height does plant life cease? Why? What can you say of the composition of the atmosphere and of the use of each part? (Ans. The atmosphere consists chiefly of a mixture of three gases. Dry air contains about one fifth part oxygen, nearly four fifths nitrogen, and about one five-hundredth part carbonic acid. There is also a variable quantity of watery vapor, which is the source of all rains and dews. The oxygen is the vital element in the breath of animals, but would destroy life if it were not so greatly

* For mountains, plateaus, and plains, consult the physical maps and the sections of the continents.

diluted with nitrogen. Carbonic acid furnishes all plants with carbon, of which they are chiefly composed.) What is the chief source of the watery vapor? What are the effects of the heat of the sun upon air? In what zone are these effects the most powerful? What are winds? Describe the trade-winds. The counter-trades. In what respects are winds similar to ocean currents? Of what uses are winds?

What is climate? Upon what does it chiefly depend? How affected by latitude? By elevation? By sea winds? By land winds? By ocean currents? By distance from the sea? What is meant by the annual rain-fall of a country? In which zone is it greatest? Describe the tropical rain-belt. How does it affect climate and vegetation? How do high mountains affect climate? What is the chief cause of deserts? Where is the great desert belt? What states or countries in each continent have a very dry climate?

What is a river system? A basin or valley? What great rivers flow into the Arctic Ocean? What plains do they drain? What great rivers flow into the Atlantic and its seas, etc.? What plains or what plateaus do they drain? Which is the most extensive river system of North America? Name some of the principal branches. Of South America? The chief branches? What great rivers flow into the Indian Ocean? What plains or what plateaus do they drain? Into the Pacific? What plains or plateaus do they drain? What rivers of Europe and Asia do not flow into the ocean? Into what do they flow? Why are such lakes salt? Are there any salt lakes in the United States? Where? In any other part of the world? Where? Where is the Dead Sea? For what remarkable? In which continents are the two chief systems of fresh-water lakes? With what rivers and ocean are they connected? What is meant by "perpetual snow?" By the "snow-line?" How does its height vary? What are glaciers? How formed? Where found in Europe? In Asia? In North America? What is Greenland supposed to be? (Ans. An archipelago in which both land and sea are filled with glaciers.) What are icebergs? How formed? (See page 15.) (Another cause is that the lower ends of arctic and antarctic glaciers are sometimes pushed forward along the sea-bottom and into very deep water. Being lighter than the salt water, they have a tendency to float, and thus break off.)

Upon what does the character of vegetable life chiefly depend? (Ans. Upon climate and soil.) Where is the principal forest region of North America? What parts of it abound in pines and firs? Where are the prairie regions? What vegetation is found on the great western plains? Near the shores of the Arctic Ocean? Where is the western forest region? Which are its principal trees? Where are the largest trees in the world? What is the character of the vegetation of the West Indies and the low parts of Central America? Name some of its trees. Where are the grassy regions of South America? The desert regions? The great forest region? Name some of its most useful trees. The chief forest regions of Europe? Of Asia? Name some Asiatic plants. Where is the principal forest belt of Africa?

Name the chief food plants of the temperate regions of North America. Of the warmer regions and the West Indies. Of South America. Of southern Europe. Of the rest of Europe. Of southern Asia. Of Africa. Of Australia. Which is the principal grain of the world? (Ans. Rice; it supports more than one third of the human race.)

Name some quadrupeds found in the colder parts of North America.* What other quadrupeds are found in that continent? Name its largest reptile. The most remarkable birds. The most remarkable quadrupeds, birds, and reptiles of South America. Some of the quadrupeds of northern Europe. Of other parts of Europe. From what continent were most of our domestic animals originally derived? Name some of the most remarkable animals of northern Asia. Of desert Asia. Of southern Asia. What peculiarity have most of the Australian quadrupeds? Name some of the pouched animals. Some of the birds of Australia and their peculiarities. How is Africa remarkable in regard to its animals? Name some of them.

Name the five races of mankind. Which two are the most numerous? Which is the least? What part of mankind is comprised in each of the five races? Where is the Caucasian race found? The Mongol? The Ethiopian? The Malay? The American? For what is the Caucasian race distinguished? What races are found in North America? In what part of the continent are the Caucasians chiefly found? Of what race are the Esquimaux? (Ans. Mongol.) Where are they? (Ans. On the shores of Alaska and of the Arctic Ocean.) The Ethiopians? The Americans? What two races occupy Europe? Which are the chief European branches of the Caucasian race? Where are the Celts? The Teutons? The Sclaves? To which branch do the Irish belong? The Welsh? The Germans? The English? The Russians? What peoples of Europe are Mongols? (Ans. Lapps, Finns, Turks, and Magyars.) What three races occupy Asia? What mountains separate the Mongols from the Caucasians? Of what race are the Persians? The Chinese? The Arabs? The Hindoos? The Japanese? The Tartars? In what part of the continent is the Malay race found? In what archipelago is the greater part of that race? What two races occupy Africa? Which is the more numerous? In what part is the Ethiopian race? The Caucasian?

^{*} In the illustrations the animals of each continent are arranged in the general order of their latitude.

POLITICAL GEOGRAPHY-GENERAL REVIEW.

What is Political Geography? What does it include? Which are the principal forms of government? What is a republic? A monarchy? A limited monarchy? An unlimited monarchy? A kingdom? An empire? Give an example of each form of government. What form of government prevails in the New World? In the Old World? What republics in Europe? What republics in Africa? What title is usually given to the chief magistrate of a republic? Of a state? Of a city? To the sovereign of Russia? Of Prussia? Of Germany? Of Turkey? Of Egypt? Of Japan? What is the capital of a country? The metropolis?

What countries and islands of North America and the West Indies belong to Great Britain? To Spain? To Denmark? Which are independent? Name the capital of each country of North America. Its largest city. What language is spoken in the City of Mexico? Quebec? New Orleans? Havana? Guatemala? Which of the countries of South America are European colonies? Where are most of the civilized inhabitants of that continent? Name the capital of each country. The largest city. What language is spoken in Caracas? In Lima? In Rio Janeiro? In Valparaiso? In Bogota? In Buenos Ayres? How do the creoles of Spanish America compare with the other races in numbers? Which two states of South America are receiving a large European immigration? (Ans. Brazil and Argentine Republic.)

Which countries of Europe are empires? Which are republics? Which are kingdoms? Which is the most extensive monarchy in the world? Which is next in extent? Which of these two has the greater population? What countries are embraced in the Russian Empire? In what country is the greater part of its population? Of what races and religions are they? What countries are included in the British Empire? Of what races and religions are its inhabitants? In what country are the greater part of the inhabitants? Of what countries does the kingdom of Great Britain and Ireland consist? Name the capital and one large city in each. What language is spoken in London? In Edinburgh? In Dublin? In Wales? (Ans. Cymric.) In Western Ireland? (Ans. Erse.) In St. Petersburg? In Christiania? In Stockholm? In Copenhagen? In Amsterdam? In Brussels? In Paris? In Berlin? In Vienna? In Berne? In Lisbon? In Geneva? In Venice? In Naples? In Athens? In Constantinople? (Ans. Many languages.)

Name the foreign possessions of France. What name is given to the Swiss states? What peoples inhabit Switzerland? What is the proper title of Austria? What provinces are included in the empire? (See map.) What peoples constitute the population? Which is the most numerous? What kingdom is on the

Danube and the Save? On the Adriatic Sea? What can you say of the population of European Turkey? Which is the governing people? Of what race, origin, and religion? Name the provinces of European Turkey. Who is the head of the Mohammedan religion? What countries are included in the Turkish Empire? What titles are sometimes given to the Turkish government? (Ans. The Ottoman Porte and the Sublime Porte.) What are the character and effects of the government? Name the colonial possessions of Denmark. What two separate kingdoms of Northeru Europe have the same king? Which of these is the more populous and powerful?

Name the countries of Asia. The capital of each. What European nations have possessions in Asia? Which are the Asiatic possessions of Russia? Of Great Britain? Of France? Of Turkey? Of the Netherlands? Of Spain? Name the divisions of Asiatic Russia. Which is the most populous? Name its capital. Describe the European population of Siberia. What countries are included in the Chinese Empire? Name in their order five governments which occupy more than half of the land surface of the globe. Where are the greater part of the inhabitants of the Chinese Empire? What is the form of government? Name the chief islands of Japan. What is the character of the government? By whom is British India governed? Who is Empress of India? What countries are included in Indo-China? What is the character of the native governments of Asia? Who are the Bedouins?

To whom do the Philippines belong? What is the capital? What city is the capital of the Dutch East Indies? Name the colonial divisions of Australia. What other British colonies are near Australia? To whom do the Feejee Islands belong? The Society Islands? The Sandwich? What is the character of the native governments of Africa? Name its most important countries. Name the capital of each. What countries of Africa are dependencies of Turkey? Of Egypt? Where are the Portuguese possessions? The English? The French? The German? The Italian? Name the Barbary States. Which of them is independent? What independent republics in Africa? What is the Congo Free State? What coast is held by the Arabs? What African islands belong to Great Britain? To France? To Spain? To Portugal?

How many states in the United States? How many territories? What is the form of government? What city is the capital? What is a state? A territory? Name the physical groups into which the United States may be divided. Name the states in each group, and the capital and largest city in each state.

What provinces constitute the Dominion of Canada? Describe its form of government? Name the capital and the largest city of each province?

COMMERCIAL GEOGRAPHY-GENERAL REVIEW.

What is domestic commerce? Foreign commerce? What articles of commerce do the New England States supply to other parts of the country? The Middle Atlantic States? The South Atlantic? The South Central? The North Central? The West Central? The Pacific States? The rest of the Great Highland? Which is the chief article of export of the United States? Name other leading articles of export to Europe. To South America. To Asia. To the West Indies. Name the principal imports of the United States. Name in their order five of its chief sea-ports. With what country is our principal foreign commerce? Which are the chief articles of import from England? Scotland? France? Germany? Italy? Brazil? United States of Colombia? Venezuela? Mexico? Cuba? Canada? China? Japan? British India? Dutch East Indies?*

From what countries do we import coffee? Tea? Sugar and Molasses? Woollen goods? Cotton goods? Linens? Silk goods? Raw silk? Iron and steel goods? Salt? Spices? Fruits? Rice? Hides and skins? Dye-woods? Indiarubber?

Name the chief Mediterranean ports of Spain. Of France. Of Italy. Of Austria. Of Turkey. Of Egypt. Of the Barbary States. Name the southern ports of Russia. The most northern port. The Baltic ports of Russia. Of Sweden. Of Denmark. Of Germany. The chief Atlantic ports of Norway. Of Germany. Of the Netherlands. Of Belgium. Of France. Of Spain. Of Portugal. Of England. Of Scotland. Of Ireland. Of British North America. Of the United States. Of Brazil. Of Guiana. Of Uruguay. Of the Argentine Republic. Of Iceland. Name the chief port or ports of the Gulf of Mexico or of the Caribbean Sea belonging to the United States. To Spain. To Mexico. To Great Britain. To Venezuela. To the United States of Colombia. What ports of the Pacific Ocean are in China? In Indo-China? In Japan? In the United States? In Mexico? In the United States of Colombia? In Equador? In Peru? In Chili? In Australia? In New Zealand? In the Sandwich Islands? Which is the chief port or ports in the Dutch East Indies? In the Spanish East Indies? On the southern coast of Africa? On the eastern coast? On the Red Sea? The Arabian Sea? The Persian Gulf? The Bay of Bengal?

Tabular Reviews.—In addition to the numerous map reviews found in the text of this work, it may be found expedient to introduce topical reviews in the form of tabular synopses. Models are given below. The headings for the columns may be greatly varied. The number of topics for each lesson is left to the judgment of the teacher.

COUNTRIES.	NORTH BOUNDARY.	EAST BOUNDARY.	SOUTH BOUNDARY.	WEST BOUNDARY.
Mexico	United States.	Rio Grande and Gulf of Mexico.	Central America.	Pacific Ocean.
United States {	Dom. of Canada.	Atlantic Ocean.	Gulf of Mexico and Mexico.	Pacific Ocean.

COUNTRIES.	SURFACE.	MOUNTAINS AND PLAINS.	RIVERS.	LAKES.	CLIMATE.
Chili {	Mountainous.	Andes.	None.	None.	Dry in N., Rainy in S.
Argentine Republic	Level.	Pampas.	La Plata, Parana.	Salt Lakes.	Cold and dry in S., Trop- ical in N.

COUNTRIES.	GOVERN- MENT.	RULER.	CAPITALS.	LARGEST CITIES.	EXPORTS.
Austria {	Limited Monarchy.	Emperor.	Vienna.	Vienna.	Wheat, wine, and manu- factures.
Italy {	Limited Monarchy.	King.	Rome.	Naples.	Oil and manufactures.

STATES.	MOUNTAINS.	RIVERS AND LAKES.	RAILROADS.		CAPITALS and CHIEF CITIES
New York {	Adirondack, Catskill.	Hudson R., Genesee R. Seneca L., Cayuga L.	N.Y.C.& Hud- son R., N.Y., L. Erie, & W.		Albany, New York.
Pennsylvania {	Alleghany, Blue, etc.	Susquehanna R., Alleghany R., Monongahela R.	Pennsylvania	Iron, Coal, Petroleum, Manufactures.	Harrisburg, Philadelphia.

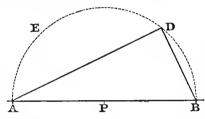
^{*} For valuable statistics of the commerce of the world, see page 125.

CARTOGRAPHY.

Order of the Maps.—To obtain the best results it is advised that the maps be taken in the following order: 1. The several states of the United States; 2. Groups of states; 3. The continents; 4. Separate countries of Europe; 5. The United States; 6. The hemispheres.

Materials and Conveniences.—1. Suitable paper. 2. Lead-pencils—No. 2 will generally be found the best for the work; keep sharp with fine file. 3. Ruler—one with a scale is best. 4. A flexible ruler will be found convenient, but is not indispensable; it should be a thin and narrow strip of cedar, or some other even-grained wood; a good piece of whalebone may be made to answer. 5. Dividers are convenient, but may be dispensed with. 6. Ink for going over the penciled coast-lines, and all other details; India ink is the best. 7. Colors: three colors—blue, yellow, and red—are indispensable; by proper mixtures of these all other necessary colors may be made. 8. Brushes, or hair-pencils, of different sizes, for laying on the colors—two or three are enough. It is also important to have two or more right-angled rulers of different sizes, for making true corners to the maps, etc. They may be readily constructed of cardboard in the following manner:

Upon a stiff piece of cardboard draw a straight line, A B, and measure off two equal parts, P A and P B. With P as the centre, draw the semicircle A E B. From any point on the circumference, as D, draw lines to A and B. The angle D is a right-angle. Cut the card on the three lines forming the triangle; use a sharp kuife.



It will often be necessary to divide a straight line into a certain number of equal parts.

1. To divide a line into 2, 4, 8, or 16 equal parts, when you have neither scale nor dividers: take a strip of writing-paper having a straight edge and just as long as the line to be divided; fold it very carefully once for halves, twice for fourths, etc., and then measure and mark these divisions upon the line.

2. To divide a straight line into any number of equal parts. Suppose A B to be the line, and that it is to be divided into five equal parts.

From either end draw a straight line, A C, of any convenient length, and, beginning at A, measure off upon A C as many equal parts (5) of any length as there are to be in A B. Draw a line from the last point (5) to B. Now from points 4, 3, 2, and 1 draw lines parallel to the line 5 B. They will divide A B into five equal parts.

To draw these lines exactly parallel, cut from a card an angle that will exactly fit into the angle at 5. Put one side of this card-angle upon the line A C, with the point exactly at 4, and draw the line 4 b. Do the same at 3, 2, and 1.

METHOD OF DRAWING.

Many plans have been devised to facilitate the accurate copying of maps. The simplest and most efficient is the method of equal squares. It has long been used in copying maps, pictures, plans, etc. The following example will sufficiently illustrate the method:

To draw the Map of North America.—1. Divide the map into equal squares. Divide the upper and lower inner margins into four equal parts, marking the points lightly in lead-pencil. Commencing at the upper corners, measure off on the right and left margins distances equal to the divisions of the upper and lower margins. Connect each point with the point opposite by a lightly drawn pencil line. Observe that one of these lines is the central meridian of the map. The map is now divided into twenty equal squares and four parts of squares. These last may be omitted in drawing, if it be thought desirable. If retained, notice that they are about one quarter as wide as they are long.

2. Prepare the paper.—If the scale of the map is to be the same as that in the book, construct the twenty squares, using the same measures. If the map is to be on a larger or smaller scale, draw a line of suitable length for the upper margin, and

divide it into four equal parts. At the ends of this line draw two others at right angles to it, and measure off upon each five parts equal to those of the upper line; join the opposite points, and complete the diagram as before. Let all the lines be drawn lightly, so as to be easily removed with the rubber.

3. To copy the map, begin with the upper left-hand square, and draw the outlines lightly in pencil, being careful to observe in what parts of the square they are to be, and where they cross the sides of the square, and so proceed with each square. While drawing, rest your hand upon a piece of paper, so as not to soil your map. Always work from above downward. If very great accuracy is desired, subdivide each of the squares, both of the original and the copy, into four or more smaller squares, and proceed as before. The greater the number of squares, the more accurate may the copy be made. To prevent mistakes, it is desirable to number or letter the squares in some regular order.



If the meridians and parallels are to be inserted, mark lightly the places where

they cross the sides of the squares, and draw them either with the flexible ruler or with the free hand.

In drawing the outlines, include only the coasts, islands, lakes, rivers, and the boundaries of countries. To fill in the details and complete the map, observe the following order:

1. Go over the meridians, parallels, and outlines slowly and carefully with a fine pen; use thin Iudia ink. 2. Draw the mountains.—Use the lead-pencil. Practice first on a picce of paper: observe that the lines used are very fine; that they are divergent, not parallel; that they are in small groups, each of which has a blank space in the middle; that the higher mountains have two or three sets of lines and are darker near the blank centre. 3. Letter the map.—Use the lead-pencil. Practice first on paper: be very careful as to spacing the letters, and use the simplest styles. Begin with the names which are in large capitals; then insert the names of lakes, rivers, cities, capes, etc. As far as possible let the lines of letters follow the direction of the parallels. Go over mountains and letters with ink. Clear all pencil marks from the map before coloring. 4. Color the map.—Use only clean water to mix the colors. Do not color too strongly. If the first coat is too weak when dry, add another.

To avoid drawing pencil lines across the engraved map.—This may readily be done in any one of several ways. The following is the easiest and best: Procure at the stationer's a sheet of gelatine paper, such as is used in copying plans, etc. It is nearly as transparent as glass. The piece used may be of the same size as the map in the book, or it may be of one half or even of one quarter of that size. If of the full size, rule it into squares, as directed in 2. Blacken the lines carefully with ink, and let them dry, and repeat the process if necessary. To use this sheet lay it upon the map with the lines upon the under side, so that the central meridian and margins of the map exactly correspond with the lines upon the paper.

If a sheet of one half or one quarter the size is used, each large square must be divided into four smaller ones. Lay it upon the map so that its edges correspond with the central meridian and the margins, and, after drawing that half or fourth of the map, follow the same plan with the remaining portions.

Another method, very suitable for home work, is to use a small pane of glass of the half size or quarter size, and ruled into squares with a common pen filled with ordinary black paint mixed with varnish. Or the ruling may be done with a diamond, and the lines blackened. Use with the ruled side down. Still another plan is to make a frame of cardboard, or some other suitable material, and divide the enclosed space into squares by means of fine threads or wires.

Additional Hints.—Never begin to draw a line until you have carefully made up your mind as to just *where* it is to be and *what* it is to be.

Small squares will be found best for maps of separate states.

Observe that the meridians are not the same distance apart at the top of the map as at the bottom, and that only one of them is a perfectly straight line.

It will be useful to remember that a degree on the central meridian is about seventy miles.

The single-page maps in this book are all of one size, but are not drawn on the same scale.

STATISTICAL TABLES.

POPULATION OF	SOME OF THE P	RINCIPAL CITIES the United States, Census of 1880	OF THE WORLD.	ii	STATISTICS a and Population of C		[]	ERCIAL STATIS	STICS.
NORTH AMERICA.	Paramaribo 25,000	Granada 76,108	ASIA.	Countries.	Army.	Navy.	Trade with the Unit	ted States, Imports,	Exports.
British America.	Cayenne 7,032	Cadiz 65,028	Turkey.	North America.	Standing War Army. Footing.	Ships.	To U.S. Fre	on. U.S.	
Montreal, Queb.216,650 Foronto, Ont181,220 Quebec, Queb 63,090	EUROPE.	Portugal. Lisbon 233,389	Smyrna150,00	 Dominion of Canada 		7	\$40,557,000 \$40	,347,000 \$119,500,000	\$101.000.0
Quebec, Queb 63,090	Norman	Oporto108,346	Damascus 150,00 Beirut 65.00	0 British West Indies Mexico		1 4	9,636,000 10	,635,000 ,173,000 33,000,000	
Halifax, N. S 88,556	Nerway. Christiania 76,866	Germany.	Brusa 60.00	0 United States	25,000 3,105,00		l	642,664,628	
ottawa, Ont 37,281 t. John's, N. F. 28,610	Bergen 34,388	Berlin1,222,360	Erzroom 60,00 Jerusalem 28,00	0 Central America 0 Cuba and Porto Rico		::		,800,000 ,066,000	
	Sweden.	Hamburg410,127 Breslau272,390	1	Hayti and San Donningo	6,500	7		,393,000	••••
Mexico. Mexico250,000	Stockholm176,745	Munich230.023	Asiatic Russia. Tiflis104,02	South America.					
Leon 90,000	Gottenburg 78,313	Dresden 220,818 Elberfeld-Barmen 180,364	Tashkend 100,00	Delivio	8,500 300,00	1 1	5,609,000 2,	,428,000 44,660,000 5,000,000	66,497, 5,647,
Guadalaxara 80,000 Puebla 65,000	Russia.	Frankfort-on-the- Main149,309	Bokhara 70,00 Irkoutsk 33,80	Brazil	15,000 32,000			,252,000 81,753,000	102,029,0
Juanaxuato 62,000	St. Petersburg 876,575 Moscow 611,974	Leipsic 149.081	Tomsk 33,79	U. S. of Colombia	3,000 31,000			,794,000 22,740,000 ,614,000 10,688,000	36,620, 13,712,
5. Luis Potosi 40,000	Warsaw339,341 Odessa193,513	Cologne144,751 Königsberg140,896	China.	Ecuador	1,200 4,700 40,000	1		7,596,000	8,034,0
Central America.	Riga169,683	Magdeburg 137,109	Pekin1,050,00	0 Uruguay	2,500 23,000	√ H	4,165,000 1,	,613,000 18,328,000	45,000, 19,752,
an Salvador 14,050	Kishenev112,137 Astrakhan 57,704	Hanover122,S60 Stuttgart117,303	Canton1,500,00 Tientsin950,00	0 -	2,240 185,000	4	6,894,000 3,	,091,000 14,800,000	11,300,
an José 12,000	Cronstadt 47,166	Bremeo112,158 Dantzic108,549	Han-chau600,00 Fnh-chan600,00	0 ∏ Entobe•	989 000 1 196 000	68	1,416,000 2,	0 KK 000 000 000	000 000
West Indies.	Archangel 20,178	Strasbourg104,501	Nankin450,00	0 Belgium	46,000 166,000	10	12,634,000 36,	,255,000 302,900,000 ,326,000 452,265,000	330,000, 428,149,
Iavana, Cuba 230,000 antiago 36,752	Great Britain and Ire- land.	Nuremberg 99,519	Shanghai 278,00 Ningpo	Denmark	35,000 49,000 503,000 3,753,000	33 258	921,000 7, 88,027,000 94.	,126,000 53,744,000 ,274,000 981,509,000	42,577, 680,130,
Lingston, Jamaica 34,314	London3,814,571	Anstria.	Hong Kong102,00	0 German Empire	445,000 1,492,000	86	84,492,000 70.	664,000 973,200,000	705, 375.
ort au Prince, Hayti 27,000	Liverpool552,425 Glasgow511,532	Yienna1,103,857 Buda-Pesth359,821	Amoy 88,00 Yarkand 80,00	0 Greece	12,000 35,000	18	217,839,000 491, 552,000	260,000 2,056,148,000 142,000 29,101,000	1,432,072, 17, 9 92,
t. Johns, Porto Rico 18,132	Birmingham 400,757 Maochester 393,676	Prague 162,318 Trieste	Kashgar 70,00	Netherlands	734,000 1,850,000 65,000; 163,000	72 122	11,644,000 9,	019,000 244,548,000 353,000 338,680,000	225,129,
an Domingo 16,000	Leeds 309,126	Lemberg110,250	Japan.	Portugal	35,000 78,000	44	758,000 4,	201,000 34,046,000	232,680, 20,502,
	Sheffield 284,410 Dublin 249,486	Gratz 97,726	Tokio (Yedo) \$11,51 Ozaka	o Opani	95,000 450,000	3S9 139	2,887,000 16, 5,934,000 12,	026,000 395,467,000 555,000 88,680,000	418,467,4 100,980,6
SOUTH AMERICA.	Edinburgb228,190	Switzerland,	Kioto229,81	Sweden and Norway	41.000 203,000	254		406,000 102,855,000	79,624,
Venezuela.	Belfast207,671 Bristol206,503	Geneva 50,043 Basle 61,399	Yokohama 67,49 Nagasaki 40,66		350,000 610,000		1,582,000 1,4	499,000 107,500,000	99,250,
Caracas 58,000 Maracaybo 21,954	Bradford 180,459 Hull	Berne 44,087 Zurich 21,199	,	Asia, Africa, etc.		1 1		, ,	
U. S. of Colombia.	Newcastle 145,228		Hindostan. Calcutta794,64	China				480,000 118,940,000	116,825,
Bogota 40,893	Dundee142,454 Brighton128,407	Italy. Naples	Bombay	n Persia	58,000		· · · · · · · ·	938,000 82,631,000 5,625,000	28,364, 2,812,
Panama 18,378	Portsmouth 127,953	Milan	Madras405,94 Hyderabad263,00	British East Indies British West Indies	190,000 380,000	::	19,012,000 8 9,630,000 10,6	855,069 244,287,000	324,599,
Popayan 8,485 Cartagena 7,800	Sunderland 124,960 Leicester 122,351	Rome289,321 Palermo236,579	Lucknow	Dutch East Indies			7,250,000 1,7	729,000]	• • • •
Ecuador.	Swansea105,949 Aberdeen105,054	Turin213,636 Genoa175,006	Benares	0 Egypt	15,000 43,000	14	3,124,000 1,1	190,000 32,750,000	64,916,0
Quito 80,000	Nottingham111,631	Florence145,207	Delhi154,41				2,204,000 6,7	730,000 236,894,000	206,150.0
Guayaquil 20,000	Cork 78,361	Yenice131,270 Messina120,709	Indo-China.	Dandwich Islands		- : 1	5,573,000 2,9	994,000 3,073,000	4,968,0
Peru.	Denmark.	Bologna 111,983	Bankok		DEA OF DA	CTN .	ar ara ara	INCIDAT DIVI	DC AT
ima101,489 Callao33,502	Copenhagea273,323	Leghorn 97,410	Singapore 97,11 Saigon 70,00	ן מ					ns or
Cuzco 19,370	Netherlands. Amsterdam328,047	Reumania. Bucharest177,646	Hue 50,00	0	THE WORL	<i>y</i> 1N	ENGLISH M	IIIES.	
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ucre 23,979	Belgium. Brussels309,936	Scrvia. Belgrade 20,970	Herat 45,00	Name.	Length of	Area of	Na	me. Len	' of
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antiago150,367 /alparaiso97,787	Ghent , 132,630 Liege	Tarkey. Constantinople600,000	Teheran200,00	Nile, Africa		425,000 250,000	Amazon, South	America 3,7	
Argentine Repub-	_	Salonica 80,000	Tabritz 120,000 Mezhed 60,000	Yenisei, Siberia	3.400 1.	040,000	La Plata, South	ire), U. S 4,2 America 2,3	00 1,242,
lic.	France. Paris2,269,023	Greece.	Ispahan 60,00		3,320	950,000 900.000	Mackenzie, Briti St. Lawrence, C	ish N. America . 2.3	00 590, 00 480,
uenos Ayres289,000	Lyons376,613 Marseilles360,099	Athens 63,374	Arabla.	Niger, Central Africa	3,000	800,000	Saskatchawan, I	Brit. N. America. 1.9	00 478,
osario 23,000	Bordeaux221,305		Mecca 45,000	Lena, Siberia	. 2.650	TS6 000	Columbia, Nort	America 1,5 th America 1,0	
Urugaay.	Lille	AFRICA.	Muscat 35,000	Yolga, Russia Murray, S. Eastern Austr	alia 2,000	600,000 500 000	Colorado, U.S.,	, N. America 1,0 Brazil, S. Amer 1,5 S. N. A 1,5	00 257,
lontevideo 73,353	St. Etienne123,813	Barbary States. Tunis125,000	Malay Islands.	Brahmapootra, South Ind	ia 2,300	450,000	Rio Grande, U.	S. N. A	00 240,
Paraguay.	Nantes124,319 Rouen105,906	Fez	Maqila270,000 Surabaya118,820	Orange, South Africa Ganges, India	1,000	446,000 416.000	Yukon, Alaska . Colorado, Texas	1,6	00 200, 00 38,
suncion 19,463	Havre105,867	Algiers 52,702 Morocco 50,000	Batavia 97,588				1		
Brazil.	Reims 93,823 Roubaix 91,757	Mequinez 30,000	Aastralia.	Area and Populati	ion of the W	neld	Chief Di	ivisions of Chris	tians.
io Janeiro274,972 ahia128,929	Spain.	Egypt.	Melbourne280,836	5	OH OF MIC III	/			
ernambuco 116,671	Madrid397,690 Barcelona249,106	Cairo327,462 Alexandria165,752	Sydney 220,427 Auckland 39,960	Continents. Area.	Population. A	er. Pop. Sq. Mile.	Continents.	Roman Protestan	Easte
(aranham 31,604	Valencia143,850	Damietta 32,730	Adelaide 38,479	il				Carnonical	Charc
Guiana. corgetown 35,000	Seville	Suez	Ballarat 30,700 Hobart Town 21,118	Asia	4 823,155,251	91.4 48.5	Europe North America.	. 24,000,000 32,000,0	00 69,000
3				Africa 11,514,98	5 108,497,091	14.6	South America. Asia	. 23,000,000 1,000,0	00
RIEF RELIGIONS OF	THE WORLD.—Christian	s. 394,000,000 · Buddhisto (Asia), 300,000,000 to 500	North America 9,849,74 South America 6,887,79	4 33,565,882	9.4 4.8	Africa	5,000,000 2,000,0 1,000,000 2,000,0	000 3,000
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	Feet.	It. Holy CrossRocky	Feet.	-		Feet. 5,223			F 20
ocatepětl Mexic	20]	Mt. RosaSwiss A	"	4.835	Hindoo-koosh	···· zzullalayd	20

Mt. St. Elias Coast Mountains 17,900 Mt. Holy Cross. Rocky Mountains 14,000 Mt. Rosa Swiss Alps. 15,223 Dhawalaghiri Himalaya. 20,000 Orizaba. " 17,156 South America. " 14,835 Mt. Holy Cross. Mt. Rosa. Swiss Alps. 15,223 Mt. Hindoo-koosh. 20,000 Mt. Holy Cross. 14,835 Mt. Holy Cross. Mt. Holy Cross. 20,000 Mt. Foral. 14,835 Mt. Indoo-koosh. Mt. Demaveld. Mt. Demaveld. Persia. 18,718 Mt. Demaveld. Mt. Demaveld. Persia. 18,718 Mt. Sean. Swiss Alps. 15,223 Mt. Mt. Demaveld. Mt. Demaveld. Persia. 18,718 Mt. Demaveld. Persia. Mt. Ararat. Turkey. 16,729 Mt. Holy Cross. Nt. Indoo-kosh. Mt. Demaveld. Persia. 18,721 Mt. Lowell. Mt. Demaveld. Persia. 18,721 Mt. Lowell. Mt. Persia. 18,721 Mt. Sean. Sierra Nevada. 11,168 Mt. Sean.	North America.	North America—Continued.	Europo-Coutinued.	A sla—Contloued.
Mt Lincoln " 14,297 Artisana (vol.) " 19,187 Artisana (vol.) Mt Kenia Mt Kenia 18, 18, 18, 18, 18, 18, 18, 18, 18, 18,	Test	Mt. Holy Cross. Rocky Mountains 14,000 South America. Aconcagua Andes 22,422 Sahama (vol.) 22,350 Chimborazo (vol) 21,124 Sorata 21,286 Illimani 21,145 Cotopaxi (vol.) 19,180 Antisana (vol.) 19,187	Ret. Freet. Swiss Alps. 15,223	Peet. Peet

	STAT	TISTICS O	F AGRI	CULTUR	E IN Th	E UNI	TED STA	TES-C	ENSUS ()F 1880.			MANUFA	CTURING.	MINING.
States and Territories.	Improved Land.	Indian Cora.	Wheat.	Oats.	White Potatoes.	Sweet Potalocs.	Tohacco.	Cotton.	Wool.	Butter.	Cheese.	Hay.	Capital.	Product.	Product.
	Acres.	Bushels.	Bushele.	Bushels.	Bushele.	Bushels.	Pounds.	Bales. 699,664	Pounds. 762,207	Pounds. 7,997,719	Pounds. 14,091	Tons. 10,363	\$9,668,008	\$13,666,504	\$365,968
Alabama	6,375,706	25,451,278	1.529,667	3,039,639	834,926	3,448,819	452,426	698,256	557,368	7,790,013	26,301	23,295	2,953,130	6,786,159	33,536
Arkansas	3,595,603	24,156,417	1,269,715	2,219,822	402,027	881,250	970,220 73,317		16,798,036	14,084,405	2,566,618	1,135,180	61,243,784	116,218,973	18,984,759
Colorado	10,565,698 616,169	1,993,325 455,968	29,017,707	1,341,271	4,550,565 383,120	86,284	,		3,197,391	860,379	10,867	85,062	4,311,714	14,260,159	20,290,522
Connecticut	1,642,188	1,880,421	1,425,014 38,742	640,900 1,009,706	2,584,252	918	14,044,652		230,133	8,198,995	826,195	557,860	120,480,275	185,697,211	147,799
Delaware	746,958	3,894,264	1,175,272	378,508	283,864	195,937	1,278		97.946	1,876,275	1,712	49,632	15,655,822	20,514,438	169,853
Florida	947.640	3,174,234	422	468,112	20,221	1,687,613	21,182	54,997	162.810	353,166	2,406	149	3,210,680	5,546,448	l'
Georgia		23,202,018	3,159,771	5,648,743	249,590	4,397,778	228,590	814,441	1,289,660	7,424,485	19,151	14,409	20,572,410	36,440,948	653,798
Illinois	26,115,154	325,792,481	51,110,602	63,189,200	10.365,707	249,407	3,935,825		6,093,066	58,667,943	1,035,069	3,280,319	140,652,066	414,864,673	8,911,279
Indiana	13,933,738	115,482,800	47,284,853	15,599,518	6,232,246	244,930	8,872,842		6,167,498	37,377,797	867,561	1,361,083	65,742,962	148,006,411	2,165,384
lowa	19,866,541	275,014,247	31,154,205	50,610,591	9,962,537	122,368	420,477		2,971,975	55,481,958	1,075,988	3,613,941	33,987,886	71,046,926	2,492,327
Kansas	10,739,566	105,729,326	17,324,141	8,180,385	2,894,198	195,225	191,669		2,865,832	21,671,762	483,987	1,589,987	11,192,315	30,843,777	2,435,841
Kentucky	10,731,683	72,852,263	11,356,113	4,580,738	2,269,890	1,017,854	171,120,784	1,357	4,692,576	18,211,904	58,468	218,739	45,813,039	75,483,377	1,211,976
Louisiana	2,739,972	9,889,689	6,034	229,840	180,115	1,318,110	56,964	508,569	406,678	916,089	7,618	37,029	11,462,468 49,988,171	24,205,188	****
Maine	3,484,908	960,633	665,714	2,265,575	7,999,625		250		2,776,407	14,103,966	1,167,730	1,107,788	68,742,384	79,829,798 106,780,563	39,239
Maryland	3,342,700	15,968,533	8,001,854	1,794,872	1,497,917	329,590	26,082,147		850,084	7,485,871	17,416 829,628	264,468 684,679	303,806,185	631,135,284	2,859,008 328,100
Massachusetts	2,128,311	1,797,768	15,768	645,159	3,070,389	450	6,369,436		299,089	9,655,587	440,540	1,393,888	92,930,959	150,715,025	
Michigan	8,296,862	32,461,452	35,532,643	18,190,793	10,924,111	4,904	83,969		11,868,497	38,821,890	523,138	1,636,912	31,004,811	76,065,198	14,805,296
Minnesota Mississippi	7,246,693	14,831,741	34,601,030	23,382,158	6,184,675		69,922	000 111	1,352,124 734,643	19,161,385 7,454,657	4,239	8,894	4,727.500	7,518,302	••••
Mississippi	6,216,937	21,340,800	218,890		353,821	3,610,560	414,553	263,111		28,672,124	283,484	1,077,458	72,507,844	165, 386, 205	4,828,845
Nebraska	16,745,031 5,504,702	202,414,413 65,450,135	24,966,627	20,670,958	4,189,694	431,484	12,015,657 57,979	20,318	7,313,924 1,282,556	9,725,198	230,819	785,433	4,881,150	12,527,335	750
Nevada	344.423	12,891	13,847,007 69,298	6,555,875 185,865	2,150,893 302,143	13,628	1,500		655,012	336,188	17.420	95,853	1,323,300	2,179,626	17,318,909
New Hampshire	2,308,112	1,350,248	169,316	1,017,620	3,358,828	• • • •	170,843		1,060,589	7,247,272	807,076	683,069	51,112,263	73,978,028	145,542
New Jersey	2,096,297	11,150,705	1,901,739	3.710,673	3,563,793	2,086,731	172,315		441,110	9,513,835	65,518	618,990	105, 226, 593	254,380,236	3,391,782
New York	17 717 862	25,690,186	11,587,765	37,675,506	33,644,807	6,833	6,481,481		8,827,195	111,922,423	8,362,590	6,240,563	514,246,675	1,080,696,696	5,122,143
North Carolina	6,481,191	28,019,839	3,897,393		722,773	4,576,148	26,986,213	389,598	917,755	7,212,507	57,380	93,711	13,045,639	20,096,037	554,450
Ohio	18,081,091	111,877,124	46,014,869		12,719,215	239,678	34,735,235		25,003,756	67,634,263	2.170,245	2,210,923	188,939,614	348,298,390	8,077,488
Oregon	2,198,646	126,862	7,480,010		1,359,980		17,325		5,718,524	2,443,726	153,198	266,187	6,312,056	10,931,232	1,227,883
Pennsylvania	13,423,007	45,821,531	19,462,405	33,841,439	16,284,819	184,142	36,948,272		8,470,273	79,336,012	1,008,686	2,811,654	474,610,993	744,818,445	65,559,675
Rhode Island	298,486	372,957	240	159,339	606,793	714	785		65,680	1,007,103	67,171	79,328	75,575,943	104,163,621	15,440
South Carolina	4,132,050	11,767,099	962,358	2.715,505	144,942	2,189,522	45,678	522,548	272,758	3,195,851	15,018	2,706	11,205,894	16,738,008	40,805
Tennessee	8,496,556	62,764,429	7,331,353	4,722,190	1,354,481	2,369,901	29,365,052	330,621	1,918,295	17,886,369	98,740	186,698	20,092,845	37,074.886	785,548
Texas	12,650,314	29,065,172	2,667,737	4,893,359	228,832	1,460,079	221,283	805,284	6,928,019	13,899,320	58,466	59,699	9,245,661	20,719,928	****
Vermont	3,286,461	2,014,271	337,257	3,742,282	4,438,172		131,432		2,551,113	25,240,826	1,545,789	1,061,183	23,265,224	31,354,356	621,033
Virginia	8,510,113	29,119,761	7,826,174	6,333,181	2,016,766	1,901,521	79,988,868	19,596	1,836,673	11,470,923	85,535	287,255	26,568,990	61,780,992	730,540
West Virginia	3,792,827	14,090,609	4,001,711	1,908,505	1,398,639	87,214	2,296,146		2,681,444	9,309,517	100.300	232,338	13,883,390	22,867,126	2,064,942
Wisconsin The Territories	9,162,528 2,900,099	34,230,579 2,923,728	24,884,689	32.505,320	8,509,161 2,771,049	7,124	10,608,423	17.000	7,016,491 8,566,563	33,353,046	2,281,411	1,896,969 662,018	73,821,802 14,860,261	128, 255, 486 27,740,301	317,636 18,596,837
			7,785,231	5,757,114	_ , ,	31,867	12,117	17.000		5,357,550	383,020				
Total	284,771,042	1,754,591,676	459,483,137	407,868,999	169,458,539	33,378,693	472,661,157	5,765,359	156,681,761	777, 250, 287	27,272,489	35,205,712	\$2,790,272,506	\$5,369,579,191	\$205,985,408

PRONOUNCING VOCABULARY.

Abbeokata
AberdeenAb er deen'.
AbyssiviaAb is sin' e a.
Acabatco
AcarayAh cuh ri'. AcariAc a ree'.
AcheenA cheen'.
AconcagnaAc on cah' gwa.
AcreA' ker.
Acheen. A cheen'. Aconcagna Ac on cah' gwa. Acre. A' ker. Adelaide. Ad' e lade. Adieu. Al' den. Adige. Ad' e je. Adirnudack. Ad e run' dack. Admiralty. Ad' me ral ty. Adrian. A' dre au. Adrianople. A dre an o' pl. Adriatic. A dre at' ic. Aegean. E je' an. Afghanistan. Af gan is tan'. Aguas Calientes. Ag' was Cal e eu'- tes.
AdenAll den.
Adirondack Aderon/dack
AdmiraltyAd'me ral ty.
Adrian
Adrianople A dre an o'p'l.
Adriatic A dre at' ic.
Acceptant At can is tan!
Agnas Calientes Ag/ was Cal e en'-
tes.
Agulhas A gool' yas.
Agulhas A gool' yas. Aisue Ane. Aix-la-Chapelle Aks-la-Sha pel'. Aixelo
Aix-la-Chapelle Aks-la-Sha pel'.
Ajaccio
Akron. Ak'ron.
A DEDUCTOR A L & DEU DEG
AlandAh' land.
Alaska Alas ka
AlbaniaAlbarie a. !
Albany
Albert NyanzaAl' bert N'yahn'-
23.
Albuquerque Al boo ker' kay.
Alderney Awi' der ny. Aleppo. A lep' po. Alepto. Aley' po. Alentian A l'yu' she an. Alexandra. Al ex an' dra. Alexandria. Al ex an' dre a. Algiers. Al jeerz'. Alicante. Al e can' te. Alleghany. Al' le gay ny. Allegheny. Al' le gay ny. Alsace. Al sahce'. Altai. Al ti'. Altamaha. Al ta ma haw'. Alton. Awi' ton. Altona. Al' too na. Al too' na.
AleppoA lep' po.
Alemandan Alemandan
Alexandria Alexandra
AlgiersAl jeerz'.
AlicanteAl e can' te.
AlleghanyAl' le gay ny.
AlleghenyAl' le gay ny.
AlsaceAl sance'.
Alternaba Alta ma hazz'
Alton Awl' ton
Altona
AltoonaAl too' na.
Amazon Am'a zon. Amesbury Amz' ber ry.
AmesburyAmz' ber ry.
AmherstAm' erst.
Amiens
Amoer A meor'.
AmoorA moor'. AmsterdamAm' ster dam.
Anam A nam'.
AuconaAn co' na.
AndamanAn da man'.
Andorra Andor/ra
AndoverAn' do ver.
Androscoggin , An dres cog' gin.
AngaraAn ga rah'.
AngleseaAng' g'l se.
Anam. A nam'. Ancona. An co' na. Andamao. An da man'. Andes. An' deez. Andorra. An dor' ra. Andover. An' do ver. Andover. An' do ver. Androscoggin Au dros cog' gin. Augara. An ga rah'. Anglesea. Ang' g'l se. Augostura. An go' la. Augostura. An gos too' ra.
AugosturaAu gos too' ra. Annult,Abu' hahlt.
AnkoharAn ko' ber.
TATELONG THE PROPERTY OF THE PARTY OF THE PA

]
	AunapollsAn vap' o lls. AutaloAu tah' lo.	
	Abtaio Abtaio Abtaio Abtaio Antarctic. Abticosti Abticos	
	AnticostiAu te cos' te.	
	AutietamAu tee' tam.	
į	AuthorniaAn te o kee' a.	
	AntwerpAut/ werp.	
	ApendinesAp' en niuz.	
	AppalachianAp pa la' che an.	
	Appalachee Ap pa lach' e.	
	AppalachicolaAp pa lach e co	la
	ArabAr' ab.	
	Araguay Ar a gway'.	
	AralAr' al.	
	ArchangelArk ane'iel.	
	Archipelago Ark e pel' a go.	
	ArdennesAr den'.	
	Arcentine Arlien tine	
	ArgyleAr gliyle'.	
	Arica A ree' ca.	
	ArizonaAr i zo' ua.	
	ArnheimArn' hime.	
	AreostookA reos' took. AscensionAs cen' sbun.	
	Ascension As cen' sbun.	
	AshanteeAsh an tee'. AshtabulaAsh ta bu' la. Asia	
	AsiaA' she a.	
	Asia. A' she a. Aspinwall. As' piu wall, Assiniboin As sin' i boin, Astalban	
i	Astrolabon As tro lang	
	Astrakhan As tra kan'. Asuncion Ah soon se one'.	
	Atacama At a cab' ma. Atbara At bah' ra.	
	AtbaraAt bah' ra.	
I	Atchieon Atchieon	
	AthabascaAth a bas' ca.	
	Athabasea. Atha bas'ca. Atoll. A'tol. Auburn. Aw'burn. Auckhand. Awk'land. Augusta. Aw gne'ta. Augsburg. Awgs'burg. Aurora. Awgo'ra.	
	Anokland Awk/land	
	Augusta Aw gns' ta.	
	Augsburg Awgs' bnrg.	
	Aurora Aw ro' ra. Au Sable O sab' b'l.	
	Anstralia Aws tra' le a.	
	Anstralia	
	AvignonAh veen yōng'. AvonA' von.	
Į	Azof	
ļ	Azores A zörz'.	
	BaalbecBahl' bec.	
	Bab-el-MandehBab-el-Man' deb. BabylonBab' e lon.	
1	BabylonBab' e lon.	
	BadajosBad a hose'. BadenBah' den.	
	BugdadBag dad'.	
	BugdadBag dad'. BahamaBa ha' ma.	
	Bahia Bah ee'a. Bahrein Bah rine'. Baikal Bi'kal. Balklan Balklah'ya	
	BaikalBi' kal.	
	BalearicBal e ar'ic.	
	Balearic Bal e ar' ic. Balkab Bal kau'. Balkash Bahl kahsh'.	

RONOUNCING	VUCADULAKI
t Balkh	.Bahlk.
Balkh Ballston Spa	.Bawlz' ton Spah.
l Balmoral	Bal mo ral'.
Baltic	.Bawl' tic.
Baltimore	Bawi' te more.
Bangar	Bang our
Banjermassin	.Bawr te more. .Bang' ca. .Bang' gor. .Bahn yer mahs sin' .Ban kok'.
Banjermassin. Bankok . Baranoff . Barbadoes . Barbary . Barbuda . Barclona . Barfleur . Barnaul . Barnegat . Basse . Basserah .	.Ban kok'.
Baranoff	. Ba ran' off.
Barbadoes	. Bar ba' doze.
Barbuda	Barba'da
Barcelona,	. Bar ce lo' na.
Barfleur	. Bar fl'yure'.
Barnaul	Bar nowl'.
Barnegat	. Bar' ne gat.
Bassorah	Bas' so ra
Bathorst	. Bath' erst.
Baton Rouge	Bah t'n Roczh'.
Bavaria	. Ba va' re a.
Bayon Soro	Bun you'.
Beanfort	. Bi/ fort (8 C)
Beaufort	. Bo' fort (Af.).
Bedonin	. Bed oo een'.
Behring	. Beer' ing.
Belfast	Rel fust
Belgium	. Bel' ie nm.
Belgrade	.Bel grade'.
Belize	.Be leez'.
Beloit	Bel He'.
Beleochistan	Be loo chis tan'
Benares	Be nah' res.
Beucoolen	. Ben coo' len.
Benevento	Ben e ven' to.
Bengui	Ben gawr.
Benguela	. Ben ga' la.
Benicia	. Be nish' e a.
Ben Lomond	. Ben Lo' mond.
Ben Nevis	Ben Ne' vis.
Bergen	Bertgen
Berlin	. Ber lin'.
Bermuda	. Ber mu' du.
Berne	Bern.
Bilhoa	. Day zanng' gong.
Barnaul Barnegat. Basle Basle Basle Bassorah. Bathorst Button Rouge Bayaria Bayonue Bayonue Bayou Sara Bennfort Bedonin Behring Behring Belize Belle Isle Belost Belost Beloochistau Benochistau Benares Benevento Bengal Bengazi Bengnai Bengnai Bengnai Bengnai Bengnai Bengnai Benevento Bengnai	. Bing' en.
Birmingham	.Bir' ming ham.
Biscay	.Bis' cay.
Blanco	.Blang' ko.
Blenheim	Blant keel ya.
Bogota	Bo go tab/
Bogota	.Bwah za'.
Bojador	. Bed ja dore'
Bokhara	.Bok hah' ra.
Bolivia	Bolly' on
Bologna	Bo lone/ va
Bombay	Bem bay'.
Bonifacio	Bon e fah' cho.
Bordeny	Boo' the a.
Borgne	Born (lo',
Boisé Bojador Bokhara Bolivar Bolivia Bologna Bombay Bombay Bombay Bombay Bornhal Borgue Bornhal	. Born' holme

Borneo. Bor'ne o. Bosna Serai Bos'na Se ri'. Bosna Boz'ne a. Bosporus. Bos' po rus. Bosporus. Bos' po rus. Boston. Bos' ton. Buthnia Both'ne a. Boulogue Boo lone'. Bowdoin Bo' d'n. Bowling Green. Boyne. Boin. Brahmapootra. Brah ma poo' tra. Brandenburg. Bran' den boorg. Brannfels. Brown' fels.
Bosun Serai Bos' na Se ri'.
BosuiaBoz' ne a.
BosporusBos' po rus.
BostonBos' ton.
BothniaBoth/ne a.
BonlogueBoo lone'.
BowdoinBo' d'n.
Bowing GreenBo ing Green.
Brohmanoatus Rush ma nasi tan
Brandenburg Brand den beere
Brannfels Brown/ fole
Braunfels Brown' fels, Brazil Bra zeel', Brazos Braz' os, Bremen Brem'en, Bremen Brem'en,
BrazosBraz'os
Bremen Brem'en
BremerhavenBra'mer hab fea.
Breslau Bres' law.
Breinerhaven. Bra'mer hah feo. Breslau Bres' law Bretagoe Bre tahn'. Bretton Bre' tom. Brindisi Brin' de se. Britain. Brit' t'n. Brookline. Brook' line, Brookly lin. Brook' Brook' jiz. Brunui Broon'. Broon Broon'. Brunui Broon.
Breton Bre' ton.
BrindisiBrin' de se.
BritainBrit' t'n.
BrookineBrook'line,
BrooklynBrook'lin.
Bruges Broo/ Jiz.
Broun Broom',
Renen
BrusaBroo'sa. Brussels Brus/sola
BrusselsBroo' sa. BrusselsBrus' selz. BucharestBoo ka lest'.
Bada Bul du
Badweis Bood' wise
Bnenaventura Bway na ven too ro
Bneva VistaBwa' na Vees' ta
Bucharlest Boo ka lest'. Bada Bn' da. Badweis Bood' wise. Buennventnra Bway naven too ra. Buena Vista Bwa' va Vees' ta. Buenos Ayres Bo' nos Air' ez. Buffillo Buf' fa lo. Bul gar'ia Bul gar' re a. Burgundy Bur' ma. Bur ma.
Buffalo Buf' fa lo.
BulgariaBul ga're a.
Burgundy Bur' gun dy.
BurgundyBur'gun dy. BurmahBur'ma.
BushireBu sheer'.
0.1.1
Cabul
CadizCa' diz.
Caen
CaermartnenCar mar' then.
Caernaryon Car nar von.
Cuicos Ellanos
Coleo (Found) 17:4 no
Cairo (H.S.) Caro
Calais Callie
Calcutta Cal cut' to
California Cale for us a
CallaoCal lah' o
Cambray Cam' bray.
Cambridge Came' brit
Campagna Cam pahn' ya
Campeachy Cam pe' che.
CanandaignaCan an da'gwa.
Canaries Can a' riz.
CanaveralCan yav'e ral.
Canda
Canton
CanteronryCan/ter ber c.
Canton (China) Can' ton.
Cane Cinanda Can ton.
Cape GirardeanCape Gir ar do'.
Cape Girardean Cape Gir ar do'. Capricorn Cap' re corn. Caraes Caraes
Unrelieff Chart For
Bushier Busheer', Cabul Cabul Ca bool', Cadiz Ca' diz. Caen Ca' en. Caermarthen Car mar' ften. Caermaren Can nar' yon. Cagliari Cabl' yar e. Calicos Ki' cose. Calico (Egypt) Ki' ro. Cairo (U.S.) Ca' ro. Calico (La can can can can can can can can can ca

- 1	Caribbee Car e bee'.
	Carlisle Carlile'
- 1	Carlemba Carlet
ı	Caribbee Car e bee'. Carlisle Car lile'. Carlsruhe Carlz' roo.
- 1	CarolinaCar e li na.
- 1	Carpathian Car not the un
- 1	Cartagena Cartagena
ŀ	CarbagenaCar ta je na.
- 1	CashinereCash mere'.
- 1	Caspian Cas' pi an.
- 1	Castile Cas tool'
- 1	Catagonana
- 1	Catasauqua Cat a saw qua.
- 1	Catoche Cah to' chay.
- Į	Cattegat
- 1	Carolion Car o li' na. Car pa' the an. Carpathian Car pa' the an. Cartagena. Car ta je' na. Cashmere. Cash mere', Caspian Cas' pi an. Castile Cas teel'. Catasauqua. Cat a saw' qua. Catoche Cah to' chuy. Cattegat. Cav' te gat. Caucasian Caw ca' shun. Caucasian Caw ca' shun. Caucasian Caw ca Sans. Cayenne Ki eu'. Cayman Ki man'. Cayuga Ca yoo' ga. Celebes Cel' e beez. Cerm Se rahm'.
ı	Consequent.
1	Cancasus
	CayenneKi en'.
- 1	Cavman, Ki man!
	Carner
	CayugaCa voo ga,
	Celebes Cel'e beez.
	CeramSe rahm'.
	Ceram Se rahm'. Cerigo Cer'e go. Cettigne Chet teen' yay.
	Cuttiene
	Cettigue Chet teen yny.
	CevennesSay ven'.
-	Ceylon Ce loue'.
	Churres Chahl gues
	Challens Chall gles.
	Chaleur
	ChalonsSha läng'.
	Cettinge Chet teen' yay. Cevennes Say ven'. Ceylon Ce lone'. Chagres Chab' gres. Chaleur Sha l'yure'. Chalous Sha ling'. Champlaio Sham plane'. Champnign Sham plane'.
	Champaign Sham was d
ı	Champaign Sham pane'.
	ChandeleurShan de l'yure.
	Chartres Shar' t'r.
	Chartres
	Chattahoochee Chat to bookehee
.	Chattahoochee Chat ta hoo'chee. Chattanooga Chat ta noo'ga.
٠,	Chardilas Chardilas III II I
	Chandiere Sho de air'.
	Chiapas
- 1	Chelsen
	Chaudière. Sho de air'. Chiapas. Che ah' pa. Chelsea. Chel'se. Cheltenham. Chelt' nam. Chemnitz. Kem' nits. Chemnur She munu'
	Chempite Fourtain
	CheminizKem mis.
	cheming
	Chemanara Sha manara
	ChenangoShe mang'go.
	Chenango She inng' go. Cherbourg Sher' buorg. Chesapeake Ches' a peak. Cheviot Chev' e ot. Cheyene Shi en'. Chichester Chich's ter
	Chenango She inng' go. Cherbourg Sher' buorg. Chesapeake Ches' a peak. Cheviot Chev' e ot. Cheyene Shi en'. Chichester Chich's ter
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Colombia	
ColoradoCo lom' be a. ColoradoCol o rah' do. Coma yagna	Enikale En e kah' l
Colorado Col o rah'do. Compyagua Com is ah'gwa. Comorin Cone o rin. Concepcion Con sep se one'. Conemaugh Con' com w. Cong ga ree'. Congo Congo,	Equator Equa' tor. Erfurt Er' foort. Erie E' re.
ConcepcionCon sep se one'.	ErzErts.
Congaree Cong ga ree'.	ErzroomErts room' EscarialEs coo re
Congo Cong ga ree. Congo Cong ga ree. Connaught Con nawt. Connecticat Con net e cut.	Esmeralda Es mer abl
ConnecticatCon net'e cut.	EspinhaçoEs pin yas EsquimauxEs' ke mo.
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Copenhagen Co pen ha' gen.	EurekaYoo re' ka
CoquimboCo pe an' po.	European Yoo' rap.
Cordova	EutawYoo' taw.
CorfuCor foo'.	Eylan I'law.
Corinth	EyreAir.
CorrientesCor re en' tes.	Fahlun Fab' loon.
Corvallis Cor val' lis.	Falkland Fawk' land
Costa RicaCos' ta Re' ka. CotopaxiCo to pax' e.	Falmouth Fal' muth. Faribault Far e ho'. Faroe Fah' ro. Fayal Fi awl'.
Costa Rich. Cost in Re Rn. Cotopaxi. Co to pax'e. Coventry. Cnv'en try. Covington Cnv'ing ton. Cozumel Co zoo mel'. Cracow Cra'co. Crimea. Crime'a.	Faroe Fah' ro.
CozumelCo zoo mel'.	FayettevilleFay'et vil.
Cracow	Fayetteville. Fay'et vil. Feejee Fc' jee. Fe le ce st Fernandina Fer ran de Ferrara Ferrara Ferrara Fayette
Crimea Cri me a. Croatia Cro a' she a. Cronstadt Cron' stat. Cnenga Kwen' sa. Cumana Coo ma nah'. Curaçoa Coo ra so'. Cuyahoga Ki a ho' ga. Cuco Cooge.	Fernandina Fer nan de
ChengaKwen' sa.	
Cumana	
CuyahogaKi a ho'ga.	Fezzal Fezzal Fezzal Fezzal Fezzal Feingal Fing gawl Finisterre Fin is tare Fiord Feord' Flanders Flan' derz Florence Flor' cince. Florida For' e da.
CuzcoCooz/ co.	Fiord Fe ord'.
Cuzco Cooz co. Cucco Cooz co. Cyclades Cyc' la deez. Cyprus Ci prus. Czar Zar.	Florence Flor' cuce.
CzarZar.	FloridaFlor'e da. FoixFwah.
DahlonegaDah lon'e ga.	Fond du Lac Fond du I
Danomey Dan nor may, Dai Nippon Di Nipr pone,	Fond du Lac Fond du I Fontainebleau Fon tane l Fontenoy Fon te noi Formosa For mo' sa
Dah on' e ga, Dah oo' may, Dah oo' may, Dai Nippon Di Nip' pone, Dakota Dah ko' ta, Dahousie Dal hoo' ze, Dalles Dalz,	FormosaFor mo'sa Fort YumaFort Yoo'
DallesDalz.	Frankfort Frank' for
DalmatiaDal ma' she a.	Frankfort Frank' for Frederickshall Fred' er ik Frederickton Fred' er ik
Dampier Land Dam' peer Land.	Fremont. Fre' mont Freiburg. Fri' hurg. Friedland Freed' lan Friesland Frees' land
Danbury Dan' ber re. Danish Da' nish.	FreiburgFri' hurg. FriedlandFreed' lau
Dantzie Dant'sik.	Friesland Frees' land
Dardanelles Dar da nelz'.	FrioFre' o. FrobisherFrob' ish e
Darfur Dar foor'.	Fuh-chauFu chow'. FujiyamaFu je yah'
Dalmatia. Dal ona' she a. Damietta Dam e et' ta. Daunjier Laud Dam' peer Laud. Danbury Dan' ber re. Danish Da' nish. Dantzic Dant' sik. Danube Dau' yoob. Dardauelles Dar da uelz'. Darfur Dar foor'. Darien Da' re en. Darmstadt Darm' stat. Darmoth Dartmuth.	
DartmouthDart' muth. DarwigDar' win.	Gaeta
Dart Houten Dar' with. Darwis Darwis Davin. Dauphiny Daw fin e. Davenport Day on port. Dayton Da' ton. Decoan Dec' can.	Galatz Ga late'. Galicia Ga lish' e
DaytonDay en port.	GallinasGal le' nas
Decoan	GallipoliGal lip'o l
Delhi (Asia)Del' le.	Gallinas. Gal le' nas Gallipoli Gal lip' o l Gallipolis Gal li po l Galveston Gal' ves to
Dellii (U. S.)Del' hi,	Gallway Gawl'way Ganges Garonie Ga ron'.
Demerara Dem e rah'ra. Demmark Den' mark.	GaronneGa ron'. GeelongZhee long
Des e ret'. Des Moines De Moin'.	GeneseeGen e see
DetroitDe troit'. DiamantinaDe a mahn te' na.	Geneseo
DieppeDe ep'.	GenoaGen'o a.
Dijoo	GeorgiaJor' je a. GeyserGhi' ser.
Dulester Nees' ter.	GhantsGawts. GheutGhent.
DominicaDom e ne'ea. DonegalDon' e gawl.	Gibraltar Gib rawl' Gila He'la.
DonegalDon' e gawl. DorchesterDor' ches ter. Doyce av	GilaHe' la.
DouglasDug' las.	Gilead Ghil'e ad. Gilolo Ghe lo'lo. Girardean Gir ar do'.
Dourefield	i GiroodeZhe ronde
Downgiac wa je ac.	Giacier Glas' e er.
DraveDraliv. DresdenDrez' den.	GlasgowGlas' go.
Dreaden	Gloucester
Dunagne	GoderichGod'rich. GondokoroGon do ko
DuluthDoo looth'. DumbartonDum bar' tou.	GonzalesGon zan'i
DumfrieeDum frees'. DumDoo' na.	Goshen
Dandee Dun dee'.	l Gothland
DunedinDu ned' in. DunkirkDan kirk'.	Gottenburg Got' ten b Göttingen Get' ting e Gracias a Dios Grah' ce al
Danmoro Ban mora/	Gracias a Dios Grah' ce al
DuquesneDu Kane'. Du QuoinDu Kwoin'.	ose. GranadaGra nab' d
DurhamDar' am.	Gravelines Grahv lee
Duquene Du kane'. Du Quoin Du Kwoin'. Durham Dur'am. Dusseldorf Dus' sel dorf. Dwina Dwi'na.	Gravelines Grahy lee Greenock Gree' nocl Greenwich Grin' ij. Grenada Gre nah'
Ean ClaireO clair'.	Grenada Gre nah' d Grigna Grik' wa.
EhroE' bro.	Griqua Grik'wa. Groningen Gron'ing Gnadalaxara Gwah da l
EcuadorEc wa dore'. EdiubarghEd' in hur ro.	i GnagaindeGaw da io
	GnadalquivirGwaw dal GnadianaGwah de
Egypt B'jipt. Ehrenbreitstein A ren brite' atioc. Fider I' der. Eisenach I' ze nahk.	GuaoahaniGwan na !
Eider	
14106	GontemalaGwah te n
Elborz Elborz'.	Guardafni Gwar da f Goatemala Gwah te n Guayama Gwi ab' m Guayama Gwi mas Guayama Gwi mas Guayama Gwi mas
Elenthera El'yoo' the ra. El Paso El Pah' so.	GuaymasGwi' mas.
	GuianaGhe ah' na
KmeImz.	GuineaGhin' ne.
EnglandIng' gland. EnglishIng' glish.	Haarlem
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EuikaleEu e kah' lay.	Hagne	Hāg.
Enikale En e kah' lay. Equator E qua' tor. Erfurt E' foort. Erie E' e.	Hainan	Hi nau'. Hal' le.
ErieE' re.	Hamburg	Ham' burg.
Erzroom Erts room'.	Hamoeriest	Han chow'.
EscarialEs coo re ahl'.	Hannibal	Han'e bal.
Erie E're Erz Erts Erz Erts Erzerom Erts room' Escnrial Es coo re ahl'. Escnerial Es mer ahl' da. Espinhaço Es pin yas' o. Esquimaux Es' ke mo. Estremadura Es tre ma du' ra. Eufaula Yoo faw' la. Eufaula Yoo faw' la. Eureka Yoo re' ka. Europe Yoo' rup. European Yoo rop' an. Eutaw Yoo' taw European Yoo' rup.	Hagne Hauluan Halle Hamburg Hamburg Hamburg Hamnoerfest Han-chan Hannibul Hannibul Handear Harfear Harrisburg Harz Hatteras Hatteras	lor fl'ynre'.
EsquimauxEs' ke mo. EstremoduraEs tre ma du' ra.	Harrisburg	Har' ris bur Harts.
Enbea	Hatteras	Hat' te ras.
EnphratesYoo nw' la.	Havana Haverhill Havre Havre de Grace	Ha van'a. Ha'ver il.
EurekaYoo re'ka.	Havre	Hah' v'r.
EuropeanYoo ro pe' an.	Hawaii	Ha wi'e.
Everest Ev'er est.	Hawaii Hayti Hebrides	Ha' te. Hab' ra dee
Eylan	Hecla	Hec'la.
LyreAir.	Hebrides Hecla Hedjas Hedjas Helena Helgoland Helgoland Helsingfors Helvoetsluys Herat Herat Herat Herat	Hed jaz'. Hi' del berg
Fahlun Fab' loon.	Helena	He le' un.
Falkirk Fal' kirk. Falkland Fawk' laud.	Heleingfors	Hel' sing for
Farmouth Fal' muth.	Helvoetsluys	Hel' vet sloe
Faroe Fah' ro.	Herat	He rat'.
FayettevilleFawl'.	Hereford	Her'e ford. Hert se ga'
FeejeeFe'jee.	Hesse	lless.
FernandinaFe ie ce an na.	Himalaya	Him a 11′ a. Hiu'doo koo
Ferrara Fer rah' ra.	Hindostan	Hin dos tan
FezzanFez zan'.	Hoang-Ilo Hoboken	llo bo'ken.
Fingal Fing gawl'. Finisterre Fin is tare'.	Hodeida	llo di'da. Hög.
Fiord Fe ord'.	Hogne Hohenlinden	Ho hen lin'
Florence Flor' ence.	Hohenzolleru	Ho nen tsoi Hon doo' ra
FloridaFlor'e da.	Honduras	Hong Kong
Fond du Lac Fond du Lac'.	Hoosac (Tannel)	Hoo' sac.
FontainebleauFon tane blo'. FontenovFon te noi'.	Hoosic (River)	Hoo'sic. Hor'e con
Fallin. Fab'loon. Falkirk Fal'kirk. Falkland Fawk'land. Falmouth Fal' muth. Faribault Far e bo'. Faroe Fah' no. Fayal Fi awl. Fayal Fi awl. Feejee Fe'jee. Feliciuna Fe le ce ah' na. Fernandina Fer nan de' na. Fernandina Fer rah' ra. Ferrara Fer rah' ra. Ferrara Fer rah'. Ferzan Fez zan'. Fingal Fing gawl'. Fingal Fing gawl'. Finstere Fin is tare'. Fiord Fe rod'. Flanders Flan' de'z. Florence Flor' cnce. Florida For da. For x Fwah. Font an en blo'. Fontainebleau Fon da Lac'. Fontainebleau Fon tane blo'. Fontenoy Fon te noi'. Fort Yoo' ma. Frankfort Frank' fort. Fradelickshall Fred' er iks hawl.	Hoosic (River) Horicon Houghton Houlton Houstonic Houston Hee Hue Hue Hue Huboldt Hungary Hurob Hyderabud	Ho' ton.
FrankfortFrank' fort.	Houston	Hole' ton. Hoo sa ton'
FrankfortFrank' fort. FrederickshallFred' er iks hawl. FredericktonFred' er ik ton.	Houston	Ha'eton.
FremontFred er ik ton.	Humboldt	Hum' bolt.
Fremont. Fre' mont. Freiburg. Fri' hurg. Friedland. Freed' land. Friesland. Free' hund. Friesland. Fre' o. Fre' hund. Fre' hund. Fre' o. Fre' hund. Fre' o.	Hungary	Itung' ga re Hu'ron
FrieslandFrees' land.	Hyderabad	Hi der a ba
Frobisher Frob' ish er.	Idaho	I' da bo.
Frobisher Frob' ish er. Fuh-chau Fu chow'. Fujiyama Fu je yah' ma.	Illinois	Il li noi'.
	luagua	E bah' gwa
Gaeta	ludia. Indian Indiana. Iudianapolis Iudies. Indies. Ingolstadt Innepruck Interluchen Inverness Inverness	In' de a. In' de an.
Galapagus Gal lap' a gose, Galatz Ga latte', Gulicia Gal lish' e a. Gullinas. Gal le' nas. Gullipoli Gal lip' o le. Gullipolis Gal lip o lees'. Galveston Gal' ves ton. Gulway Gawl' way	Indiaoa	in de an'a.
GallinasGal le' nas.	Indies	in de an ap In diz.
GallipoliGal lip' o le.	Ingolstadt	Ing' gol sta Ing' prook
GalvestonGal' ves ton.	Interlachen	In ter lah'l
Galway	Inverary	In ve ra' re. In ver ness
GaronneGa ron'. GeelongZhee long'.		
GeneseeGen e see'.	Ipswich	E rahn'.
Geneseo	Ireland Irkoutsk	ire' land.
GenoaGen'o a.	Ironton	I ron ton.
GeorgiaJor' je a. GeyserGhi' ser.	Irtish	Ir' tish.
GhantsGawts. GheutGhent.	Iser	E'zer.
Gibraltar Gib rawl' tar. Gila He' la.	Islay (S. A.)	Iz li'.
GilaHe' la. GileadGhil' e ad.	Ismail	is man cel'. Is man eel
GiloloGhe lo' lo.	Ispahan Isthmus	Is pa han'.
GirardeanGir ar do'. GiroodeZhe ronde'.	1 11nscs	I tas' ca.
Giacier Glas'e er.	Ithaca	Ith'a ca. E'vry
Glasgow Glas' go, Glenmore Glen more'. Gloncester Glos' ter.		
(†OD1	Jaen	Han en'. Ha lah' pa.
GoderichGod' rich. GondokoroGon do ko' ro.	Jalapa	Ja ma' ca.
Gonzales	Japan Jaesy	Ү яв' ву.
Goshen	Jaesy Java Jedburgh Jena Jersey	Jah'va. Jed'huro.
Cothland Coth' land	Jena	Ya'na.
GottenburgGot' ten boorg.	Jersey	Jer z e. Je roo' sa le
Gottenburg Got' ten boorg. Göttingen Get' ting en. Gracias a Dios Grah' ce abs ah De'-	Jersey. Jernsalem. Jesso Jiddah. Joannes. Johannisberg. Joliet. Juan Fernandez.	Yes' so.
GranadaGra nab' da.	Joannes	Zho ah' nee
Gravennes Granv leen.	Johannisberg	Yo hahu' 18 Jo' le et.
Greenock	Juan Fernandez	Joo'an Feri
Grenada Gre nah' da. Griqua Grik' wa.	Innefrag	Yoong' from
GroningenGron'ing en. GuadalaxaraGwah da la hah'ra.		
Gradalnue Gay da loop's	Jura	
GnadalquivirGwaw dal quiv'ir. GnadianaGwah de ab'na.	Kalahari Kalamazoo	IXIII II III II Z
Guaoahani Gwan na hah' ne.		
Guaoahani Gwah na hah' ne. Guanaxuato Gwah na hwah' to. Guardafni Gwar da fwe'.	Kankakee	Kan kaw'k
GnardainiGwar da fwe'. GoatemalaGwah te mah' la.		
GunyamaGWI an' ma.	Kansas	Kah rah Ka
Gilavinas		
Gnerusey Ghern' ze. Gniana Ghe ah' na. Gninea Ghin' ne.	Kashgar Kaskaskia Katahdin	Kas kas ke
GaineaGhin' ne.	Katahdin	Ka tah' din Kar' ne.
Haarlem	Kearney Kearsarge	Keer' sarj.

Hagne	- 1
HalleHi nan'.	İ
Halle Hal'le. Hamburg Ham' burg. Humioerfest Ham' mer fest. Han-cham Han chow'. Hannibul Han's bal	
HammoerfestHam' mer fest. Ham-chanHan chow'.	
Hanover Han'o ver. Harflear Har fl'yure'. Harrisburg Har'ris burg.	1
Harrisburg Har'ris burg.	
Hatteras	
Havana	- 1
Harrsourg Harr ris ourg. Harz Harteras Hat' te ras. Havana Ha van'a. Have il. Havre de Grace Hah' v'r. Havre de Hawii Haw	
Hawaii	ice .
Hawaii Ha wi'e. Hayti Ha'te. Hebrides Heb' re deez.	
Hebrides Heb' re deez, Hech Hec' la. Hedjas Hec' la. Hedjas Hed jaz'. Heidelberg Hi' del berg, Helenn He le' un. Heigoland Hel' go land, Heißingfors Hel' sing forz, Helvoetsluys Hel' vet sloose, Hen lo' pen.	- 1
Hedjas Hed jaz'. Heidelherg Hi' del berg	
HelenaHe le' un.	
Heleingfors Hel' sing forz.	
HelvoetsluysHel vet sloose,	.
Herolopen Hen lo' pen. Herat He rat'. Hereford Her'e ford.	
Hereford	าก
Hesselless. HimalayaHim a li'a.	
I HIDGOO-KOOSH HID/GOO KOOSH.	.
Hindostan. Hin dos tan'. Hoang-Ho Ho ang-Ho'. Hoboken Ho bo' ken. Hodeida Ilo di' da.	
HobokenIlo bo ken.	
HodeidaHo di'da.	
Hogue Hög. Hohenlinden Ho hen lin' den Hohenzolleru Ho hen tsol' lei	ı.
nonumasnon door ras.	ıı,
Hong Kong Hong Kong'. Honolnla	
Hoosac (Tannel) . Hoo' sac. Hoosic (River) Hoo' sic.	ŀ
Horicon	İ
HoughtonHo'ton. HoultonHole'ton.	
Honsatonic Hoo sa ton'ic. Houston Hū'ston.	ł
HneHoo a'.	
Hungary Itung ga re. Huron Hu'ron. Hyderabad Hi der a bad'.	
Idahol' da ho. IllinoisIl li noi'.	i
IlmenIl men'.	i
IndiaIn' de a.	
Indian In' de an.	-
IndianapolisIn de an ap' o	lis.
IngolstadtIng' gol stat.	
InnspruckIns' prook.	1
Inverary In ve ra' re.	
Illinois. Il li noi'. Ilmen Il men'. Ilmen Il men'. Inagna E nah' gwa. Indian In' de an. Indian In' de an. Indian In de an ap' o' Indies I'm' diz. Ingolstadt Ing' gol stat. Innspruck Ins' prook. Interlachen in ter lah' ken. Inverary In ve ra' re. Inverness In ver ness'. Iowa I' o wa. Ipswich Ipps' wich. tran Erahn'.	ļ
Ipswich Ipe' wich.	
Trefand fand.	
IrkoutskIr kootsk'. IrontonI ron ton.	
Ironton I ron ton. Iroqnois. I ro kwoi'. Irtish Ir' tish.	- 1
lser E'zer.	
Iser E' zer. Islay (Scotland) I' lay. Islay (S. A.) Iz li'. Ismail Is muh cel'	
IsmailIs man cel'. IsmailiaIs man eel ya.	
I Ispahan is na han'.	
ItascaItas' ca.	
IthacaIth' a ca. IvryE' vry.	- 1
Jaen Hah en'. Jalapa Ha lah' pa.	
Tomnicada ma' ca.	
Japan Japan'. Jassy Yas' sy. Jab'y ya	
To Jhangh Tod/ bar o	
Jena Ya'na. Jersey Jer'ze. Jerusalem Je ron'sa lem. Jesso Yes'so.	
JerusalemJe roo' sa lem.	
Jesso Yes' so. Jiddah Jid' da	
JoannesZho ah' neez.	rg.
JolietJo' le et.	/40=
Juan remainiezJoo an reman JubaZhoo ba.	GCZ.
Jernsalem Je roo' sa lem. Jesso Yes' so. Jiddah Jid' da. Jonones Zho ah' neez. Johannisberg Yo hahn' is be Joliet Jo' le et. Jana Fernandez Joo'an Fernan Jaba Zhoo' ba. Jungfran Yoong' frow. Juniata Ju ne at' a. Jura Joo' ra.	
JuraJoo'ra.	
Kalabari Kah la hah're.	
I Kalamazookai a ma zor.	
KanawhaKa naw' wa.	
Kano	
KansasKan' zas.	ım.
KarrooKarroo'.	
Kaskaskia	
Kamtchatka Kan tchat'ka. Kanawha Ka naw'wa. Kankakee Kan kaw'ke. Kano Kah no'. Kansas Kan'zas. Kara Korum Kah rah Ko'ru Karroo. Kar roo'. Kashgar Kash gar'. Kaskaskia Kas kas'ke a. Katahdin Ka tah'din. Kearney Kar'ne.	

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Mackenzie Macken' ze.
Mackinac Mack' e naw.
Mackinac Mack' e naw.
Mackinaw Mack' e naw.
Machon Ma' con.
Madera. Ma de' ra.
Madrid. Ma dreed'.
Madrid. Ma dreed'.
Maleistrom Mayl' strum.
Magdalena Mag da le' nu.
Magdalena Mag de le' nu.
Magdalena Mag de burg.
Mainotchio Mi ma cheen'.
Malabar. Mala bar'.
Malabar. Mala bar'.
Malaca. Malay.
Malay. Ma la ya.
Malaya. Ma la' ya.
Malaysin Ma la' ya.
Malaysin Ma la' ya.
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Malaysin Ma la' ya.
Malaysin Ma la' ya.
Malaysin Man' ta ya.
Malaysin Man' ta ya.
Manayunk Man a yonk'.
Manayunk Man e to boh'.
Manito Man' ta ya.
Manitoba Man e to boh'.
Manitoba Man e to woc'.
Manthata Man' in a.
Marengo Mar e ki' bo.
Marathan Mar' e on.
Mar'no ra.
Marquette Mar ket'.
Marscilles Mar sailz'.
Mascarene Mas ca rene'.
Massillon Mas' sil lon.
Matapan Mat ta wom' keg.
Mattawamkeag Mat ta wom' keg.
Mattawamkeag Mat ta wom' keg.
Mattawamkeag Mat ta wom' keg.
Mattawamkeag Mat ta wom' keg.
Mattawamkeag Mat ta wom' keg.
Mattawamkeag Mat ta wom' keg.
Mattawamkeag Mar ta wom' keg.
Mattawamkeag Mar ta' to.
Maccina Mee' e na.
Medierrancan Mee' e na.
Melbonrne Mel' born.
Meophremagog. Mem fre ua' gog.
Menai Me' t' thyr-Tyd' vil.
Messina Me' t' thyr-Tyd' vil.
Messina Me' te nez.
Merida Me' e da.
Mer' do.
     Khedive.....Ka'div.
Khiva....Ke'va.
Khorassau...Ko ras san'.
Kidderminster...Kid'der min ster.
Kitderminster Kid' der min ster.
Kiel Keel
Kiev Ke ev'.
Kildare Kil dair'.
Kildare Kil dair'.
Kildare Kil dair'.
Kildarey Kil e mahn jah ro'.
Kilkenny Kil ken' ny.
Killarney Kil lar' ney.
Kingkitao King ke tah' o.
Kiolen Keer' len.
Kioto Ke o' to.
Kishenev Kish en ev'.
Kissingen Kiss' ing en.
Kittatanning Kit tan' ning.
Kittataning Kit tan' ning.
Kittatinuy Kit at in' ny.
Kittery.
Kit' ter y.
Kit' ter y.
Kit' han' kin' hat.
Kod'aic Ko' de ahk.
Kodono Ko' ko mo.
Königsherg Ka' nigs berg.
Königsterg Ka' nig grets.
Kanen Lau Kwen Loon'.
Kardistan Koo' die tan'.
Kurlie. Koo' reel.
                            iel.....Keel.
Labrador Lab ra dore'.
Laccadive Lac' ca div.
Lackawanna Lack a waw' na.
La Crosse Lah Cross'.
Ladoga. La do' ga.
Ladrone. La fray et'.
Lagoon La goon'.
Lagoon. La goon'.
Lagos. Lah Gwi' ra.
La Hogne Lah Gwi' ra.
La Hogne La Hog'.
Lamnermoor Lan mer moor'.
Lancaster Lan' cas ter.
Landaan Lan daw'.
     Lancaster Lan' cas ter.

Landan Lan daw'.

Langaedoc Lahn ghe dok'.

Lansing Lau' eing.

Lao eing.

Lao eing.

Lapear Lah Pahz'.

La Plata Lah Plah'ta.

Laramie Län' a me.

Laredo La ra' do.

La Salle Lah Schl'.

La Salle Lah Sihl'.
Laredo. La ra' do.

La Rochelle Lah Ro shel'.

La Salle Lah Suhl'.

Lassa Lah Suhl'.

Lassa Lahs' sa.

Lausanne Lo zan'.

Leavenworth Lev' en worth.

Leghorn Leg horn'.

Lehigh Le' high.

Leiter Lin' ster.

Leinser Lin' ster.

Leinser Lin' ster.

Leinse Lee' na.

Leon Le' na.

Leon Le' na.

Levant Le vant'.

Lewes Li' is.

Leyden Li' d'n.

Libyan Lib' e an.

Liege Leezh.

Lille Lee!

Lima Lee' ma.

Liege Lin' horg.

Lim' a re.

Limoges Lim' burg.

Lim' a re.

Lip'a re.

Lip'a re.

Lip' no.

Lin' bon.

Lin' bon.

Lim' on the short of the con.

Lin' on the short of the con.

Limon Liz' hon.

Lin Leo Ke oo.

Lianoe L'yah' nōs.

Loango Loang' on.

Lobos Lo' bose.
                                                                                                                                                                                                                                                                                                                                                                                                                       mense. Milze.
Miani. Miam'e.
Michigan. Mish'e gan.
Mikando. Me kah' do.
Milan . Mil'an.
Milwankee. Mil waw'ke.
Midanao. Min da nah'o.
Mindoro. Min do'ro.
Mindoro. Min do'ro.
Mindoro. Min de lon'.
Miramichi. Mira me she'.
Missisquoi. Mis sis 'kwoi.
Missolonghi. Mis so long' ghe.
Missolonghi. Mis so long' ghe.
Missolonghi. Mis soo're.
Mitylene. Mit e le ne.
Mobile. Mo heel'.
Mocha. Mo'ka.
Mogadore. Mog n dore'.
Molnecas. Mo luc' caz.
Mongol. Mon' gol.
Monongalhela. Mo non ga he'la.
Montana. Mon tali' na.
Montana. Mon tali' na.
Montana. Mon tali' na.
Monterey. Mon te ray'.
Monterey. Mon te ray'.
Monterey. Mon to ren' sc.
Montpelier. Mont poe' yer.
Montreal. Mon tre awl'.
Morea. Mo re' n.
Moscow. Mos' co.
Mosel. Mo zel'.
Montorok. Mon zel'.
Montorok. Mon zel'.
Montonel. Mon the fert.
Montorok. Mon zel'.
Montorok. Mon mo ek'.
Monubline. Mu' nik.
Moscat. Mus cat'.
Muskingum. Mus king' gum.
Mysore. My sore'.
Naontyl
     Lianos L'yah' nos.
Loango Lo ang' go.
Lobos Lo' bose.
Loch Leven Lok Lev' en.
Loch Lomond. Lok Lo' mond.
Lodi. Lo' de.
Lofoden Lo fo' den.
Loire Lwar.
Lombardy. Lom' bar dy.
Lomond. Lo' mond.
london. Luo' don.
Lop Nor. Lop' Nor.
Lorraine Lor rain'.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Nacogdoches. Nac og do' chez.
Nahant. Na hant'.
Namar. Na' mnr.
Nankin Nau keen'.
Nanling. Nahn ling'.
Nantes. Nates.
Naples. Na' pl'z.
Nashua Nash' u a.
Nassan. Nas' saw.
Nutal Natchez. Natch' ez.
Natchicoches Natch e toch' cz.
Navarino. Nava re' no.
Neagh Na.
Nas' na.
       Lop Nor. Lop' Nor.
Lorraine Lor rain'.
Los Angeles. Lōs An' jc les.
Los Roques. Lōs Ro' kes.
Longh Erne. Lok Ern'.
Lonisharg. Loo' is berg.
Lonishard. Loo ez e ah' na.
Lonisville. Loo' is vil.
Lowell. Lo' l.
Lobeck. Loo' beck.
Lucerne. Loo sern'.
Luck' no.
Lutzen Loot' zen.
Luxemburg. Lux' em burg.
Luzernee. Loo zerne'.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Nedjed... Nej ed.
Neuse... N'ynsc.
Nevada... Nay vah' da.
Newark... New ark.
Ncw Berne... New Bern.
Ncw Britain... New Brit' t'n.
Newburgh... New hor re port.
               Luzerne.....Loo zerne'.
Luzon....Loo zon'.
            Lycoming. Ly com' ing.
Lyons. Li' onz.
          Macassar.....Ma cas' sar.
Machias......Ma chi' as.
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New GranadaNew Granah' da.	Pedec
New GranadaNew Granali'da.	Perpus
New Granda New Ghin' ne New Guinea New Ghin' ne New Orleans New Or'le anz, New Rochelle New Ro shell', New Zealand New Ze' land,	Pakis
New Orleans New Or le aliz.	Peliag
New Zealand New Ze' land.	Pembina Pemigewasset.
NgamiN'gah' me.	Pensacula
Ngami N'gah' me. Ngami N'gah' me. Niagara Ni ag' a ri. Nicaragua Nic a rah' gwa. Nice Nece. Nicabar Nicabar'	Pensacula
NicaraguaNic a rah' gwa.	i rernaminaco
Nicehar Nicehar	Persia
NiemenNe' men.	Pesth
NigerNi' jer.	Philippiae
NinevehNin' e veh.	Picardy Picton
Nice . Neece. Nicobar. Nic o bar'. Niemen. Ne' men. Niger . Ni' jer. Nineveh . Nin' e veh. Niobrara . Ni o bra' ra, Nipissing . Nip' is singNipoon . Nip pone'. Nismes. Neemz. Norfolk . Nor' fok.	Picton
Nippor Nip rope'	Piedmont Pietermaritzhn
NismesNeemz.	Pigna
NorfolkNur' fok.	Pisa
Norrkoping Nor'ko ping.	Piqua Pisa Piscataqua Pitcairo Plaquemine
NorwalkNor wok.	Pitcairo
Nismes. Neemz. Norfolk. Norf fok. Norrkoping. Norf ko ping. Norwalk. Norf wok. Norweit. Norf in. Nort Danne. Nof 'tr Dahm'. Nova Scotia. Nof va Scot she a. Nova Zembla. Nof va Zem' bla. Nova Zembla. Nof va Zem' bla. Nova Zembla. Nof va Zem' ko. Nova Zembla. Nof va Zem' bla.	Plateau
Nova Scotia No' va Sco' she a.	Platte
Nova Zembla No' va Zem' bla.	Plymouth,
NovgorodNov go rod'.	Poitiers
Nyassa N'vaha'sa.	Polynesia Pompeii
a.yabba.,	l Pontchartraia.
OahnWah' hoo,	Popayan Popocatepetl Port au Prioce
Oanin. Wall info. Oasis. O'a sis. Oaxaca. Wah hah'kh. Obi. O'be. Occanica O she an'e ca.	Popocatepetl
Ohi O'he	Port an Prince
OceanicaO she an'e ca.	Porto Rico
Ocinulgee Oc mul' ghce.	Porte Rico Porto Vecchio
OconeeO co' nee.	
Obi. O'be. Oceanica O She an'e ca. Ocmulgee Oc mul'ghee. Oconiee Oc'nee. Oder O'der. Odessa O des'sa. Ogeechee O ghee'chee. Olse. Waltz. Okeechobe O kee cho' bee, Okhotsk. Ok hotsk'.	Posen Potomac
OgeecheeO ghee' chee.	Potosi
OiseWahz.	Potosi Ponghkeepsie.
Okeachobee O kee cho' bee.	royang
OkhotskOk hotsk.	Prague Prairie du Chi
Okhotsk. Ok hotsk'. Olmutz. Oi' muts. Omaha O'ma haw.	Presque Isle
	Prussia
Onondaga On on daw'gu. Ontario On ta're o. Opelika Opel'e ka. Opelowa Orelewia	Prussia Pnebla
OntarioOn ta' re o.	Puerto Princip
OpelousasOpel e ka.	Pyrences
OportpO per'to.	1 yrendos
Opelika	Quatre Bras
OregonOr'e gon.	Qnebec
Orlzaha Ore z ba. Orkneys Ork' Orleans Or'le Ormuz Or'muz. Ortegal Or'e gahl	Quenlun
OrkneysOrk',	Queretaro Quiloa
OrleansOr' le	Quincy
OrmuzOr' muz.	Quincy Quinebaug
Osnore Osnore'.	Quito
Osage Osage Osage Oshkosh Osh Kosh Osh Wosh Osh Work Oshahurg Oz'na burg Ossawattomie Os sa wot'o me	Racine
OsnahurgOz' na burg.	Ragusa. Rahway Rainier Raisia. Raleigh Rangoon
OssawattomieOs sa wot' o me.	Rahway
OstendOs tend'. OswegoOs we' go. OtaheiteO' ta hije.	Rainier
OtaheiteO'ta hite.	Raleigh
Otranto O tran' to.	Rangoon
Otranto Otran' to. Ottawa. Ot' ta waw. Ottamwa. Ot' tum waw.	Rapidau Rappahanuock
OndeOod.	Rappanannock Raritan
Ouse Ooz.	Ratisbon
Owasco Owas' co. Ozaka O'zah ca. Ozark Ozark.	Ravenna
OzakaOʻzah ca.	Reading
Ozark Zark.	Reims Rensselaer Resacade la Pai
PacaraimaPah cah rah e'mah.	Resacadela Pa
PachaPa shaw'.	
Padang Padang	Restigouché
PaduaPad'u n. PnisleyPaze' ley.	Reykjavik
Palermo Paler' mo.	Rhone Riad
PalestinePal'es tine. PalmerstonPahm'er ston.	Richeliea
Palmerston Pahm'er ston.	Riesen
Palo Alto Pah' lo Al' to. Palos Pah' los.	Riesen Gebirge
PamlicoPam' le co.	Riga
PamlicoPam' le co. PampasPam' paz.	i Kio Grande
PanamaPan a mah'.	Rio Janeiro
Para Parah'	Roanoke
ParaguayPahr a gway'.	Romagna Roncesvalles
ParahybaPanr ah e' bah,	Rosario
Paramaribo Par a ma re' ho.	Rotterdam
ParanaPahr a nah'.	Rouen
Parana. Pap It a. Para Parah' Paraguay. Pahr a gway'. Paranyba. Pahr a he' buh. Paramaribo Par a ma re' ho. Parana. Pahr a nah'. Passan' e. Passan' e. Passan' e. Passan' e. Pat a go' ne a. Patos Pah' tose.	Roumania
PatagoniaPat a go' ne a.	Roumelia Rouses Point
Patos Pah' tose,	Rownn
PatrasPa tras'. PecosPa' kose.	Russin
recos	Ryswick

, Pa'e pus.	Saarbru Sabisas
Pe dee'. Pa' e pus. Pa' e pus. Pe kia'. Pa ling'. Pa ling'. Pen' be na. Pen e je wos' sit. Pen sa co' la. Per nam boo' co. Per' she a. Pest. Phe lip' pi. Pic' ar de. Pic ton'. Peed' mont. Irg. Pee termar'itz burg. Pik wa. Pis cat' a kwa. Pit kairn'. Plak meen'. Plat u'. Plat u'. Pol e ve' slia a. Pon shar train'. Pop a yan'. Por' to Peince'. Por' to Yek ke o. Por' tu gal. Po' yan'. Po to' se. Po to' se. Po to' se. Po to' se. Po' to' se. Po' to' se. Po' yang'. Praig. Ping u Sheen'. Pra' re du Sheen'.	Sabiae .
Pem' be na.	Saco
Pem e je wos'sit.	Sacrame Sadowa
Pep'ia.	Saghaliı
Per main boo'co.	Saginaw Saguesa
Pest.	Sahama
Phe lip' pi.	Sahara . Said Saigon . Salamai
Pic'ar de.	Saigon .
Pic tor.	Salamai Salisbui
nrgPee ter mar'itz burg.	Salonica
Pik' wa.	Samana Samarai
Pis cat' a kwa.	Samarca
Plak meen'.	Samoan San Ber
Pla tu'.	San Ber San Die Sandnsk
Plim'uth.	San rei
Poi teerz'.	Sangam San Joa
Pom pa'e.	San Jos
Pont spar train .	San Jua San Lui
Pop o cah' te pet'l.	
Pört b Frince .	San Lnis
Por' to Re' ko.	San Mai San Mig San Sal
Por' tu gal.	San Sal
Po' zea.	Santa B Santa C Santa C Santa F
Po to' se.	Santa C
Po kip se.	Santa E
Praig.	Santiage Santiage
Presk Eel'Presk Eel'Prush' yaPwn' bla. pePware' to Preen' ce-	
Prush' ya. Pwa' bla.	Saone Saragos
pePware'to Preen'ce-	Saratuv
pay. Pir´en eez.	Sarawak Sarmien
Kaht'r Brah'.	Sarmien Saskatel Sault St
Kaht'r Brah'. Kwe bec'. Kwen loon'. Kay ray tah' ro. Ke' lo a. Kwin' ze. Kwin e bawg'. Ke' to.	
Kwen non .	Scheldt. Schenec Schoodi
Ke' lo a.	Schoodi
Kwin e bawg'.	Schroon Schnylk
Ke to.	Schweid Schweri
Ra seen'. Rah goo'sah. Raw' way. Ra' neer. Ra' zin. Raw' le. Rang goon'. Rap id ao'. Rar' it in. Rat' is hon. Rat ven' na. Rat edding. Redemz.	Scilly Scioto
Raw way.	Schwes.
Ra' neer.	Scotia
Raw' le.	Seattle.
Rang goon'.	Sebago. Sebastor
kRap pa han' nock.	Sedan
Rat' is hon.	Seidlitz Selae
Ra ven'na.	Senegal Senegan
Reemz.	Sennaar
Reemz. Ren sel er. alma.Ray sah' ca day la	Seoul Serro Es
Pahl' ma. Res te goo sha'.	Severn.
Rike' ya vik.	Seville.
Rike' ya vik. Rön. Re ad'.	Shangh
Reesh' e lü. Re' zen. Re'zen Co boya'ga	Shawan
eRe'zen Ge bere'ge.	Shikoku Siam
Re'ga.	Sicily Sierra I. Sierra M
Re' o Grahn' day.	Sierra M
Ro an oke'.	Sierra N.
Ro mahn' ya.	Silesia
Ro sah're o.	Sinaloa
Rot' ter dem.	Sinope.
Roo mah' ne a.	Sionx Skager
Reesh'e lū. Ro'zen. Ro'zen. Re'zen Ge bere'ge. Re'gn. Re'o dayla Plah'ta. Re'o Grahu'duy. Re'o Ja nay'ro. Ro an oke'. Ro mahn'ya. Ronse vahl'yes, Ro sah're o. Roo mah' ne a. Roo mah' ne a. Roo me'le a. Rowse'ez Point. Ro'sh'. Rush'a. Rush'a. Rush'a. Rush'a.	Skaneat
Ro' вп.	Slavonia
Rush'n	Sleswick

G t t Gabul broods	,
Saarbruck Sahr' brook. Sabinas Sah be' nas.	
Sabiae Sa been'. Sable Sa' h'l.	
	-
Sacramento Sac ra men' to.	
Sadowa Sah' do wa.	1
Sacramento Sac ra men' to. Sadowa Sah' do wa. Saghalin Sag ha leen'. Suginaw Sag e naw. Sagnenay Sag nay. Sahama Sa hah' ma.	1
Saguenay Sag' nay.	1
Sahara Sahah' ra.	-
Dalu	-
Salgon Si goa'. Salamanca Sal n man' ca.	1
SalisburySawlz' ber re.	ı
	ł
Samarang Sam ar ang'.	1
Samana Sa nash' na. Samana Sa nash' na. Samarang Sam ar ang'. Samarcand Sam ar cand'. Saman Sa nash ya. San Bar yar de'ya.	
San Bernardino San Ber nar de'no.	.
San Diego,San De a' go.	
Sam oan Sa mo an San Bernar de'no. San Bernardino San Bernar de'no. San De a' go. Sandusky San das' ke. San Felipe San Fay le pay. Sanganon San foa keen'. San José San Ho zay'. San José San Ho zay'. San Luis Obispo San Loo eas' O bis'.	١
SangamonSan' ga moa.	l
San José San Ho zay'.	1
San JuanSan Hoo ahn'.	. 1
po.	
po. San Luis PotosiSan Lou ces' Po to'-	۱.
San MarinoSan Ma re'no.	1
San MignelSan Me ghel'.	
Santa BarbaraSan' ta Bar' ba ra.	
Santa Clara San' ta Clah' ra.	
Santa CruzSan' ta Croose.	.
Santee San tee'.	1
San Luis Potosi San Louces' Potose. San Marino San Ma re'no. San Miguel San Me ghel'. San Salvador San Sal va dore'. Santa Barbara San' ta Bar' ba ra. Santa Clara San' ta Clou' ra. Santa Cruz San' ta Croose. Santa Fé San' ta Fay'. Santee San tee.' Santiago San te ah' go. Santiago de Cuba. San te ah go day	.
Cā ba.	
SaoneSon. SaragossaSar a gos'sa.	1
Saone. Sōa. Saragossa Sar a gos'sa. Saratov Sar a tov'. Sarawak Salir a walir'	
SarmientoSair a wank .	1
Sarawak Sahr a wahk'. Sarmiento Sar me en' to. Sakatch' a wawn. Saskatch' a wawn. Sault Ste. Marie Soo Sent Ma' re.	
Save Sahv.	í
ScheidtSkelt.	
SchenectadySke nec' ta de. SchoodicShoo' dic.	ł
SchroonSkroon. SchuylkillSkool' kill. SchweidnitzShwit' nits.	
SchweidnitzShwīt' nits.	
ScillySil'le. SciotoSi o' to.	
Schwes. Sklahvz. Scotia. Sko' she a. Scuttari Skoo' ra re. Seattle Se at' tle. Sebago. Se ba' go. Sebastopol Se bae' to pol. Sedan Se dalu'.	
ScutariSko sne a.	1
SeattleSe at'tle.	
Sebastopol Se bas to pol.	
Sedan Se dahn'. Seidlitz Sed' lits.	1
SelantzSed hts.	1
SelveSane. SenegalSen'e gawl. Senegambia:Sen e gam' be a.	
Sennaarsen naur.	
ScoulSa ool'.	
vah' so.	1
Severn Sev' ern. Seville Sev' il.	1
Shanghai Shang hi'.	ŀ
Shanghai Shang hi'. Shawangunk Shong' guo. Shenandoah Shen an do' a.	1
ShikokuShi koʻkoo.	ì
SiamSi am'.	
Sierra LeoneSie er'ra Le o'ne.	1
Sierra Madre Se er' ra Mah' dray.	
Shir Sti Ro' Roo. Siam Si am'. Sicily Sis'e le. Sierra Leone Se er' ra La o' ne. Sierra Madre Se er' ra Mah' dray, Sierra Nevada Se ro' ra Ne vah' da. Sihon Se hoon'. Silesia Si le' se a. Sinai Si' na i. Sinaloa Sin a lo' a.	
SilesiaSi le' se a.	1
Sinaloa Si na i.	
SinopeSin' o pe.	1
SingaporeSing ga pore'.	
Skager RackSkag er Rack.	
SkaneatelesSkan e at' e les. SlavoniaSla vo' ne a. Sleswick Holstein Sles' wik Hôl' stine.	
Sleswick Holstein Sles' wik Hol'stine.	. 1
G11	
SmolenskSmo leusk'.	1

Smyrna	. Smir'na.
Socotra	. So co' tra.
Sokoto	. So RD to.
Smyrna	.50 maw ie.
Sonora	Sough'tob
Saral	Sort el
Snudan	Son dan'.
Sna	Spali.
Spa	.Spi' er.
Spheroid	.Sphe' roid.
Sporades	. Spor'a deez.
St. Anthony	.Sent An' to ny.
Staten Island	.Stat'n I'land.
St. Augustine	.Sept Aw gus teen'.
St. Croix	Sent Croi
Stellacoom	Sur Eli'no
St. Etiopuo	Sout Et e ov'
Stattin	Stat teen'
St. Genevieve	Sent Jen e veev'.
St. Helena	.Sept He le' na.
St. Lawrence	.Sent Law' rence.
St. Louis	.Seat Loo' is.
St. Pierre	Sent Pe air.
Straisund	Strant soond.
Stromboli	Strom' ho le
St. Roque	Seat Roke'.
Stuttgart	.Stoot' gart.
Suchau	.Soo chow.
Sucre	.Soo' eray.
Sumatra	,oa maii' tra.
Surahave	Sara hi'ob
Surat	.Su rat'.
Surat Surinan	Spah. Spi'er. Spi'er. Spi'er. Spi'er. Spi'er. Spi'er. Spot'a deez. Sent An' to ny. Stat'n I'land. Sent Croi'. Sent Croi'. Sent Eli'as. Sent Et e cn'. Stat teen'. Sent Jen e veev'. Sent He le'na. Sent Law'rence. Seat Loo'ie. Sent Pe air'. Sirahl' soond. Stras' bourg. Stroo' ho le. Seat Roke'. Stoot' gart. Soo chow. Soo' cray. Sa mah' tra. Sun' da. Sa ra bi' ab. Sa ra bi' ab. Sa ra bi' ab. Sa ra ti'.
Snwanee	.Su waw' nee.
Snwanee Swansea Syracuse	Swawn' se.
оугасиsе	.syr a cuse.
Tabriz	.Ta breez'.
Tahiti	.Ta he'te.
Tahlequah	.Tah'le kwah.
Talladega	.Tal la de' ga.
Talinhassec	Tal la has' see.
Tamaqua	Tum'n tuby
Tampico	.Tam ne'co
Tananariyo	Tap an a re vo'.
Tananariyo Tanganyika	Tav an a re vo'. Tabu gahu ve'ka.
Tananarivo Tanganyika Tangier	Tao an a re vo'. Tabn gahn ye' ka. Tan jeer'.
Tananarivo Tanganyika Tangier Taos	Tao an a re vo'. Tabn gahn ye'ka. Tan jeer'. Tah' ose.
Tananarivo Tanganyika Tangier Taos Tapajos	Tao an a re vo'. Tabn gabn ye'ka. Tan jeer'. Tah' ose. Ta pah' yose.
Tananarivo Tanganyika Tangier Taos Tapajos Tashkend	Tao an a re vo'. Tabn gabn ye'ka. Tan jeer'. Tah'ose. Ta pah' yose. Tash kend'.
Tananarivo Tanganyika. Tangier. Taos Tapajos. Tapajos. Tashkend Tasmania	Tab an a re vo'. Tabn gabn ye'ka. Tan jeer'. Tah' ose. Ta pah' yose. Tash kend'. Taz ma' ne a. Tabn' top
Tananarivo Tanganyika. Tanganyika. Tangier. Taos Tapajos. Tashkend Tasmania Tannton Tauris.	Tab an a re vo'. Tabn gabn ye'ka. Tabn gabn ye'ka. Tan jeer'. Tah' ose. Ta pah' yose. Tash kend'. Taz ma' ne a. Tahn' too. Taw ris.
Tananarivo - Tangaayika . Tangier . Taos . Tapajos . Tashkend . Tasnauia . Tannton . Tauris . Tehad .	Tan an a re vo'. Tahn gahn ye'ka. Tan jeer'. Tah' ose. Ta pah' yose. Tash kend'. Taz na' ne a. Tahn' ton. Taw' ris. Chad.
Tanganyika. Tanganyika. Tanganyika. Tangier. Taos. Tapajos. Tashkend Tasmania Tannton Tannton Tannton Tehad. Teheran.	Ta breez'. Ta he'te. Tah'le kwah. Tal la de' ga. Tal la has' see. Tam' a tahv. Tam pe' co. Tan aw' kwa. Tam pe' co. Tahn gahn ye' ka. Tan jeer'. Tah' ose. Ta pah' yose. Ta pah' yose. Tash kend'. Tat na' ne a. Tahu' co. Tahu' ris. Chad. Tee he rahu'.
Tananarivo . Tangan yika . Tangan yika . Tangier . Taos . Tapajos . Tashkend . Tasmania . Tannao . Tanris . Tchad . Teheran . Tehean .	Tau an a re vo'. Tahn gahn ye'ka. Tahn ger'. Tah' ose. Ta pah' yose. Tash kend'. Taz na' ne a. Tahn' too. Thw' ris. Chad. Tee he rahn'.
Tananarivo . Tanganyika Tanganyika Tangier . Taos . Tapajos . Tashkend Tssmania Tannton Tannton Tchad . Teheran Tehuantepec Tegueigalpa	Tan an a re vo'. Tahn gahn ye' ka. Tahn ger'. Tah' ose. Ta pah' yose. Tash kend'. Taz na' ne a. Tahn' ton. Taw' ris. Chad. Te e he rahn'. Te wahu' te pec. Ta goo se gahl' pa.
Tananarivo . Tanganyika . Tanganyika . Tanganyika . Tangier . Tapajos . Tashkend . Tashkend . Tannion . Taunion . Taunion . Teheran . Teheran . Tehuantepec . Tegneigalpa . Terre Haute	Tab an a re vo'. Tab an a re vo'. Tabn gabn ye'ka. Tan jeer'. Tah' ose. Ta pah' yose. Tash kend'. Taz na' ne a. Tahn' toa. Tahn' toa. The wabn' te pec. Ta gab e gabl' pa. Ten re rif Ter re Hote'.
Tananarivo . Tangan yika . Tangai yika . Tangier . Taos . Tapajos . Tashkend . Tssmania . Tannton . Tauris . Tchad . Teheran . Teheran . Tehenantepec . Tegneigalpa . Tenerifie . Tere Haute . Tezcuco .	Tab an a re vo'. Tabn gahn ye'ka. Tahn gahn ye'ka. Tan jee'. Tah' ose. Ta pah' yose. Tash kend'. Taz na' ne a. Tahu' toa. Tanw' ris. Chad. Tee he rahu'. Te wahb' te pec. Ta goo se gahl' pa. Ten' e rif Ter re Hote'.
Tehuantepec Tegucigalpa Teneriffe Terre Haute Tezcuco	Te wahn' te pec. Ta goo se gahl' pa. Ten' e rif Ter re Hote'. Tez con' co.
Tehuantepec Tegucigalpa Teneriffe Terre Haute Tezcuco	Te wahn' te pec. Ta goo se gahl' pa. Ten' e rif Ter re Hote'. Tez con' co.
Tehuantepec Tegucigalpa Teneriffe Terre Haute Tezcuco	Te wahn' te pec. Ta goo se gahl' pa. Ten' e rif Ter re Hote'. Tez con' co.
Tehuantepec Tegucigalpa Teneriffe Terre Haute Tezcuco	Te wahn' te pec. Ta goo se gahl' pa. Ten' e rif Ter re Hote'. Tez con' co.
Tehuantepec Tegucigalpa Teneriffe Terre Haute Tezcuco	Te wahn' te pec. Ta goo se gahl' pa. Ten' e rif Ter re Hote'. Tez con' co.
Tehuantepec Tegucigalpa Teneriffe Terre Haute Tezcuco	Te wahn' te pec. Ta goo se gahl' pa. Ten' e rif Ter re Hote'. Tez con' co.
Tehuantepec Tegucigalpa Teneriffe Terre Haute Tezcuco	Te wahn' te pec. Ta goo se gahl' pa. Ten' e rif Ter re Hote'. Tez con' co.
Tehuantepec Tegneigalpa Teneriffe Terre Haute Tezcuco Thames Thebes Theiss Theiss Thisa Thibodeaux Tientsin Tierra del Fuego	Te waho' te pec. Ta goo se gahl' pa. Ten' e yif Ter re Hote'. Tez coo' co. Tenz. Theeoz. Ticc. Thee mop' e le. Te thu' Shahn. Te bet'. Tio do'. Te ent seen'.
Tehuantepec Tegneigalpa Teneriffe Terre Haute Tezcuco Thames Thebes Theiss Theiss Thisa Thibodeaux Tientsin Tierra del Fuego	Te waho' te pec. Ta goo se gahl' pa. Ten' e yif Ter re Hote'. Tez coo' co. Tenz. Theeoz. Ticc. Thee mop' e le. Te thu' Shahn. Te bet'. Tio do'. Te ent seen'.
Tehuantepec Tegneigalpa Teneriffe Terre Haute Tezcuco Thames Thebes Theiss Theiss Thisa Thibodeaux Tientsin Tierra del Fuego	Te waho' te pec. Ta goo se gahl' pa. Ten' e yif Ter re Hote'. Tez coo' co. Tenz. Theeoz. Ticc. Thee mop' e le. Te thu' Shahn. Te bet'. Tio do'. Te ent seen'.
Tehuantepec Tegneigalpa Teneriffe Terre Haute Tezcuco Thames Thebes Theiss Theiss Thisa Thibodeaux Tientsin Tierra del Fuego	Te waho' te pec. Ta goo se gahl' pa. Ten' e yif Ter re Hote'. Tez coo' co. Tenz. Theeoz. Ticc. Thee mop' e le. Te thu' Shahn. Te bet'. Tio do'. Te ent seen'.
Tehuantepec Tegnoigalpa Teneriffe Terre Hante Tezcuco Thames Thebes Theiss Thermopyle Thian Shaa Thibodeanx Tientsin. Tierra del Fuegu Tiflis. Tiisit.	Te waho' te pec. Ta goo se gahl' pa. Ten' e rig Ten' e rig Ter re Hote'. Tez coo' co. Temz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tio o do'. Te en' seen'. Te er' ra del Fwa'- go. Tii' ist. Tim buc too'.
Tehuantepec Tegnoigalpa Teneriffe Terre Hante Tezcuco Thames Thebes Theiss Thermopyle Thian Shaa Thibodeanx Tientsin. Tierra del Fuegu Tiflis. Tiisit.	Te waho' te pec. Ta goo se gahl' pa. Ten' e rig Ten' e rig Ter re Hote'. Tez coo' co. Temz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tio o do'. Te en' seen'. Te er' ra del Fwa'- go. Tii' ist. Tim buc too'.
Tehuantepec Tegnoigalpa Teneriffe Terre Hante Tezcuco Thames Thebes Theiss Thermopyle Thian Shaa Thibodeanx Tientsin. Tierra del Fuegu Tiflis. Tiisit.	Te waho' te pec. Ta goo se gahl' pa. Ten' e rig Ten' e rig Ter re Hote'. Tez coo' co. Temz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tio o do'. Te en' seen'. Te er' ra del Fwa'- go. Tii' ist. Tim buc too'.
Tehuantepec Tegnoigalpa Teneriffe Terre Hante Tezcuco Thames Thebes Theiss Thermopyle Thian Shaa Thibodeanx Tientsin. Tierra del Fuegu Tiflis. Tiisit.	Te waho' te pec. Ta goo se gahl' pa. Ten' e rig Ten' e rig Ter re Hote'. Tez coo' co. Temz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tio o do'. Te en' seen'. Te er' ra del Fwa'- go. Tii' ist. Tim buc too'.
Tehuantepec Tegneigalpa Tenerifie Terre Haute Tezcuco Thames Thebes Theiss Theiss Theiss Thibodeaux Thibodeaux Tientsin Tierra del Fuego Tilsit Timbuctoo Tirpova Tilcaca Tilcaca Tilcaca Tolosk Todenius	Te waho' te pec. Ta goo se gial' pa. Ten'e rig Ter e Hote'. Tez coo' co. Tenz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tib o do'. Te ent seen'. Te er' ra del Fwa'- Ti' lis. Til' sit. Tim but too'. Teen' no va. Tit e cah' ca. Te unen'. To bolsk'.
Tehuantepec Tegneigalpa Tenerifie Terre Haute Tezcuco Thames Thebes Theiss Theiss Theiss Thibodeaux Thibodeaux Tientsin Tierra del Fuego Tilsit Timbuctoo Tirpova Tilcaca Tilcaca Tilcaca Tolosk Todenius	Te waho' te pec. Ta goo se gial' pa. Ten'e rig Ter e Hote'. Tez coo' co. Tenz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tib o do'. Te ent seen'. Te er' ra del Fwa'- Ti' lis. Til' sit. Tim but too'. Teen' no va. Tit e cah' ca. Te unen'. To bolsk'.
Tehuantepec Tegneigalpa Tenerifie Terre Haute Tezcuco Thames Thebes Theiss Theiss Theiss Thibodeaux Thibodeaux Tientsin Tierra del Fuego Tilsit Timbuctoo Tirpova Tilcaca Tilcaca Tilcaca Tolosk Todenius	Te waho' te pec. Ta goo se gial' pa. Ten'e rig Ter e Hote'. Tez coo' co. Tenz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tib o do'. Te ent seen'. Te er' ra del Fwa'- Ti' lis. Til' sit. Tim but too'. Teen' no va. Tit e cah' ca. Te unen'. To bolsk'.
Tehuantepec Tegneigalpa Tenerifie Terre Haute Tezcuco Thames Thebes Theiss Theiss Theiss Thibodeaux Thibodeaux Tientsin Tierra del Fuego Tilsit Timbuctoo Tirpova Tilcaca Tilcaca Tilcaca Tolosk Todenius	Te waho' te pec. Ta goo se gial' pa. Ten'e rig Ter e Hote'. Tez coo' co. Tenz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tib o do'. Te ent seen'. Te er' ra del Fwa'- Ti' lis. Til' sit. Tim but too'. Teen' no va. Tit e cah' ca. Te unen'. To bolsk'.
Tehuantepec Tegneigalpa Tenerifie Terre Haute Tezcuco Thames Thebes Theiss Theiss Theiss Thibodeaux Thibodeaux Tientsin Tierra del Fuego Tilsit Timbuctoo Tirpova Tilcaca Tilcaca Tilcaca Tolosk Todenius	Te waho' te pec. Ta goo se gial' pa. Ten'e rig Ter e Hote'. Tez coo' co. Tenz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tib o do'. Te ent seen'. Te er' ra del Fwa'- Ti' lis. Til' sit. Tim but too'. Teen' no va. Tit e cah' ca. Te unen'. To bolsk'.
Tehuantepec Tegneigalpa Tenerifie Terre Haute Tezcuco Thames Thebes Theiss Theiss Theiss Thibodeaux Thibodeaux Tientsin Tierra del Fuego Tilsit Timbuctoo Tirpova Tilcaca Tilcaca Tilcaca Tolosk Todenius	Te waho' te pec. Ta goo se gial' pa. Ten'e rig Ter e Hote'. Tez coo' co. Tenz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tib o do'. Te ent seen'. Te er' ra del Fwa'- Ti' lis. Til' sit. Tim but too'. Teen' no va. Tit e cah' ca. Te unen'. To bolsk'.
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Tehuantepec Tegneigalpa Tenerifie Terre Haute Tezcuco Thames Thebes Theiss Theiss Theiss Thibodeaux Thibodeaux Tientsin Tierra del Fuego Tilsit Timbuctoo Tirpova Tilcaca Tilcaca Tilcaca Tolosk Todenius	Te waho' te pec. Ta goo se gial' pa. Ten'e rig Ter e Hote'. Tez coo' co. Tenz. Theeoz. Theeoz. Thee mop' e le. Te aho' Shahn. Te bet'. Tib o do'. Te ent seen'. Te er' ra del Fwa'- Ti' lis. Til' sit. Tim but too'. Teen' no va. Tit e cah' ca. Te unen'. To bolsk'.
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Troyes. Truxillo. Tucson. Tucaman Tulare Turin Turin Turkestan, Tuscany. Tyrol	Trwah. Troo heel' yo. Too son'. Too cu man'. Too lah' rc. To' rin. Toor kes tan'. Tras' ca ne. Tri role'.
Ulater Umatilla Umbagog Upernavik Upsai Ural Ural Uralana Uraguay Utah Utica Utica Utigent	
Valladolid. Vallejo. Valencia. Valparaiso. Vanconver. Venetia. Venezuela. Venice. Vera Cruz. Vergennes. Vermilion. Verona. Versailles. Vesuvins. Viceroy. Vineanas. Vineanas. Vistula.	Val la do legd'. Val ya' ho, Val ya' ho, Val len' she a. Val pa ri' zo. Van coo' ver. Ven e' she s. Ven e' she s. Ven' ice. Va' ra Krnos. Ver rjenz'. Ver mil' yon. Ve ro' ina. Ver selz'. Ve soo' ve ns. Vice' roy. Ve eu' na. Vin cenz'. Vis' tr la.
Wabash Wachusett Wahahee Wahsatch Walbachia Walla Walla Warsaw Warwick Washita Waterloo Waterloo Waterloo Waterloo Wankesha Wener Westphalia Wieshaden Wilkeshare Wilunebago Winnipeg Winnipeg Winnipeg Winnipeg Winnipeg Winonski Wionski Woonsocket Worcester	Waw hash. Waw chn' sett. Wah hah' he. Wah hah' he. Wah satch'. Wah la' ke a. Wo' la Wo' la. Wo' set. Wo' set. Wo' set. Wo' e taw. Wo' ke. Wo' e taw. Waw ter loo'. Waw ke shaw. Wn' ner. West pha' le a. Wees bah' den. Wilks' har re. Wil lam' et. Win ne ba' go. Win' ne peg. Win' ne pes. We no' na. We no' na. We no' na. We no' na. We no' set. Woon sock' et. Woon sock' et. Woor' tem herg. Wy no do'. Wi' o' ming.
Yablonoi Yang-tse-Kin Yarkand Yarkand Yazoo Yedo Yeneen Yenisei Yezoo Yokohnma Yosemite Youghloghen Ypsilanti Yuba Yucatao Yukun	Ya hlo noi'. ng Yang'-tse-Ke ang'
Zacatecas Zambesi Zangnebar Zante Zanzibar Zealand	Zac a ta' cas. Zam hı' zee. Zahng ge hur'. Zan' te. Zan ze har'. Ze'land. Zoo'rik. Zoot' fen. Zi' der Zee.

THE OLD AND NEW SYSTEMS OF RAILROAD TIME.

LXVI a.

THE OLD, OR LOCAL, STANDARD TIME.

- 1. Solar Day.—The interval between two successive crossings of the meridian by the *sun's centre* is called a *solar day*. True Noon at any place is the instant at which the sun's centre crosses the meridian of that place.
- 2. Solar Days vary.—If the axis of the earth were exactly perpendicular to the plane of its orbit, and if the orbit itself were a circle, all solar days would be of the same length. But the inclined axis and elliptical orbit of the earth cause a considerable variation in the length of the solar days. For this reason, a perfectly regulated clock or watch does not and cannot keep time with the sun. Such a clock shows the time that would be shown by the sun, if, as above supposed, the axis of the earth were perpendicular and its orbit circular. From one noon, or 12 o'clock, to another, as shown by such a timepiece, there are always and exactly $24 \times 60 \times 60$ seconds. The length of the day thus shown is the exact average length of all of the solar days of the year. This average, regular, unchangeable day is called the mean solar day, its noon is called mean noon, and the clock is said to keep mean time.
- 3. Owing to the position of the axis of the earth and its varying rate of motion in its elliptical orbit, true or solar noon sometimes lags behind mean noon, losing a little each day, until it is sometimes about 15 minutes behind the regular mean noon; at other times of the year it gains on the mean noon, little by little overtakes it, and at last gets about 15 minutes ahead of it. Thus, when the shadow is just on the noon or meridian mark on the 27th of October, a good watch will show 16 minutes of 12, and on the 10th of February, 15 minutes past 12. Only four times in a year will they agree.
- 4. Mean Solar Time, therefore, is the time shown from day to day by a good clock or watch, not that shown by the sun. This mean solar time has been in general use about a century. Before that, clocks had to be reset daily by the sun or *noon* mark.
- 5. Local Time.—Since the earth turns on its axis from west to east, the sun will come to the several meridians of our western cities after it has already passed those of the eastern ones. Since the whole revolution through 360 degrees is performed in 24 hours, a change of 15 degrees of longitude changes the time one hour. The same moment that it is 9 o'clock at Memphis (90° W.) it is 10 o'clock in Philadelphia (75° W.) and 8 o'clock in Denver (105° W.). The mean solar time shown at a given place is called local time, and has until recently been in universal use. All places having the same longitude must have the same local time.

Questions.—1. What is a solar day? True noon?—2. Why do solar days vary in length? What is a mean solar day? Mean noon? What kind of time does a good clock show?—3. How and how much do true noon and mean noon differ on the 27th of October? On the 10th of February? How often do they agree?—4. What is mean solar time? How long in use?—5. What difference in longitude produces an hour's difference in time? Give illustration. What is local time?

LXVI b.

THE RAILROAD OR HOUR-BELT SYSTEM, OR NEW STANDARD TIME.

1. Dangers.—Local time sufficed for all social purposes until within a few years. The introduction, multiplication, and interlacing of railroads soon led to difficulties and dangers arising from the use of local time. Safety and system require that every railroad must have a carefully constructed time-table to regulate the running of its trains. The time shown in the table was the local time of some important place on the road, usually one of its termini. The watch of every conductor and other employee on that road must show the local time of this terminus. This time necessarily differed from the local time of all other

places on that road. On long roads this difference was sometimes more than an hour. It thus happened that trains running through the same railroad centre from various termini had three or four, and sometimes even a greater number of different standards of time. These considerations led, by general agreement, to the adoption, in 1883, of the following system of time for the railroads of the United States and Canada. It is based upon the system of local time already explained.

2. Standard Meridians.—Meridians 75°, 90°, 105°, and 120° west of Greenwich are selected as *Standard Meridians*. They are 15° apart. The *local* time on any one of them, therefore, differs exactly one hour from the local time on either of the two others between which it is situated.

Hour-belts.—Each standard meridian is the middle line of a belt 15° wide, extending $7\frac{1}{2}^{\circ}$ east and $7\frac{1}{2}^{\circ}$ west of that standard meridian.

Belt Time.—Whatever may be the local time at a given instant on any standard meridian, that is taken to be the time at every place in the belt through which that meridian runs. That is, if it is 10 minutes of 5 local time on the standard meridian, every watch in every place in that belt should at the same instant show 10 minutes of 5.

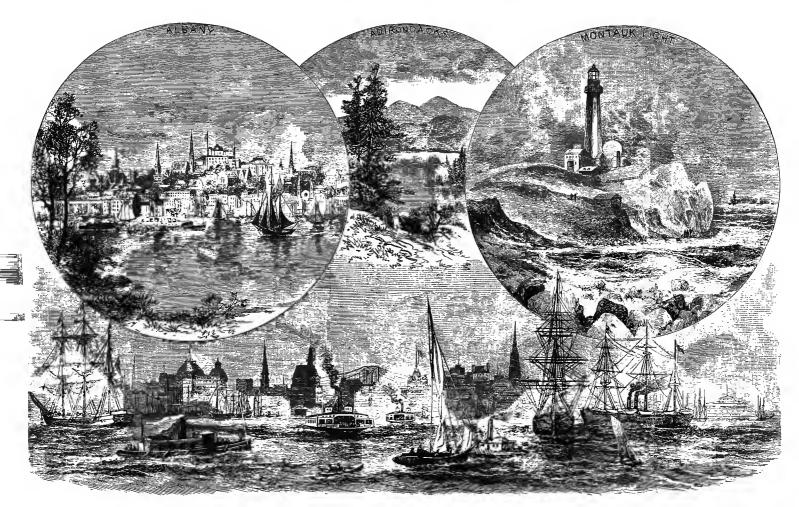
Agreement.—Since the standard meridians are 15°, or exactly one hour apart, if it is 10 minutes of 5 in one belt it is 10 minutes of 4 all over the belt next west of it, and 10 minutes of 6 all over the belt next east of it. Therefore, whatever be the place of the hour hands, the minute hands of all watches in the United States and Canada will point to the same figure.

Terms used.—The time shown in the belt of the 75th meridian is known as Eastern Time; in that of the 90th meridian as Central Time; in that of the 105th meridian as Mountain Time; and in that of the 120th meridian as Pacific Time. The 60th meridian, proposed for Inter-colonial Time, is not yet in use.

- 3. Adoption.—Many great cities lie quite near some standard meridian. This promptly led to a wide adoption of the new standard time for all social purposes, the change at New York being less than 4 minutes, and at Philadelphia and St. Louis only about 1 minute. But places on or near the borders of the hour-belts required a change of about 30 minutes. Besides this, some of the long railroads have been obliged to push the time of a terminus lying in one belt far over into an adjoining belt. This has caused the lines separating the belts to be very irregular, and the belts to vary greatly in width, thus departing from the simplicity of the original plan. The standard time at Bismarck. Da., is 43 minutes earlier, and that at Erie, Pa., is 40 minutes later than the local time; so that the new standard noon at the former place sometimes comes 58 minutes before, and at the latter place 55 minutes after, the sun crosses the meridian. For these and other reasons, among which is the fact that many occupations are practically dependent upon the sun's light, many cities, and some large districts of country, have not yet adopted the new standard of time for general social purposes.
- 4. The Astronomical, or Navigators', Day is the mean solar day that begins at noon on the 1st standard meridian, that of Greenwich. A ship's chronometer shows Greenwich time, and thus enables a navigator to know his exact longitude on the ocean from day to day. This is the same as spreading the local time of Greenwich, not over an hourbelt, but all over the world.
- 5. The Local Civil Day is the mean solar day of 24 hours which begins at midnight. It is the day that is *dated* in the calendar. The *change of date* occurs first at an irregular line passing from pole to pole through the Pacific Ocean. (See map, page 120.)
- 6. In place of the present local civil day it is proposed to establish a Universal Civil Day which will begin at *mean noon* at Greenwich, and will extend by 24 hour-belts quite around the globe.

Questions.—1. What causes led to the hour-belt, or railroad system of time?—2. Which are its standard meridians? Describe the hour-belts. Belt time. In what do the belt times agree? What name for each?—3. Where is the system used? Why? Where not used? Why?—4. Describe the navigators' day.—5. The local civil day.—6. The universal civil day.

NEW YORK.



DESCRIPTION.

[Area, 49,170 square miles. Total population, 6,003,157. Taxable population, 5,997,853. Untaxable population, 5,304.]

Position and Rank.—The geographical position of New York,—between the Great Lakes on the west, and the Atlantic Ocean on the south-east,—together with its natural facilities for water-communication, enlarged by canals, has given the state its foremost rank in the Union for population, commerce, and wealth, and its title of the "Empire State."

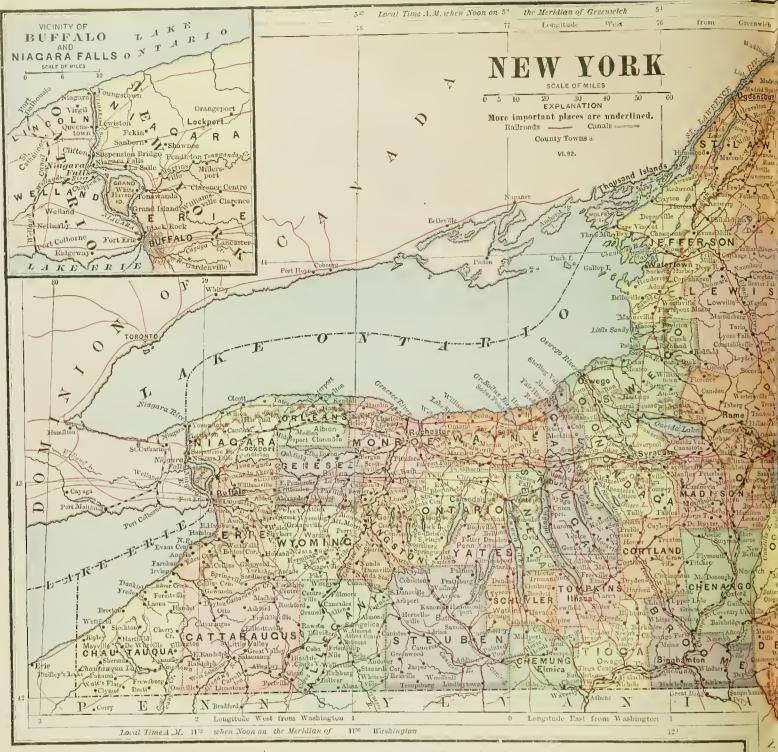
Outline and Boundaries.—The outline is very irregular. A little over one-third of its boundary consists of straight lines, the other two-thirds being formed by bodies of water, including Lake Erie, the Niagara River, Lake Ontario, part of the St. Lawrence River, and Lake Champlain. The linear boundaries make about 541 miles; the water boundaries, 879 miles.

Extent.— The most northern boundary coincides nearly with the 45th parallel. The most southern point in the state, at the south extremity of Staten Island, is under the parallel of 40° 30′. The principal part of the state lies between the meridians of 73° and 79° west longitude. Its greatest length from east to west, exclusive of Long Island, is about 315 miles; and its greatest breadth from north to south, about 312 miles. Its area is somewhat greater than that of Pennsylvania.

Surface. — This state lying between the Appalachian mountain system and the Great Lakes, its surface presents marked contrasts of elevation. The highest mountain region is that of the Adirondack Mountains, in the north-eastern part, the highest peak of which is Mount Marcy, 5,379 feet in altitude. The Catskill Mountains, farther south, reach an elevation of nearly 4,000 feet, south-west of which are the Shawangunk Mountains, an extension of the Blue or Kittatinny Mountains of Pennsylvania; and still farther south are the Highlands, a low range from New Jersey, which extend in a north-easterly direction, and are pierced by the Hudson River. These mountains form a part of the Taconic range.

The remainder of the state is chiefly in the basins of Lake Erie and Lake Ontario and the valley of the Mohawk. The southern parts contain the head waters of the Delaware, Susquehanna, and Alleghany rivers. In the central part of the state is a plateau region, the culminating point of which, in Onondaga County, reaches an altitude of 2,000 feet.

Islands. — Long Island, the largest, is about 115 miles in length, and from 8 to 23 in breadth. It comprises the three counties, Kings, Queens, and Suffolk. Staten Island, which comprises Richmond County, is about 14 miles in length, and from 4 to 8 in width. The most important island is Manhattan, the most populous part of the city of New York. It is



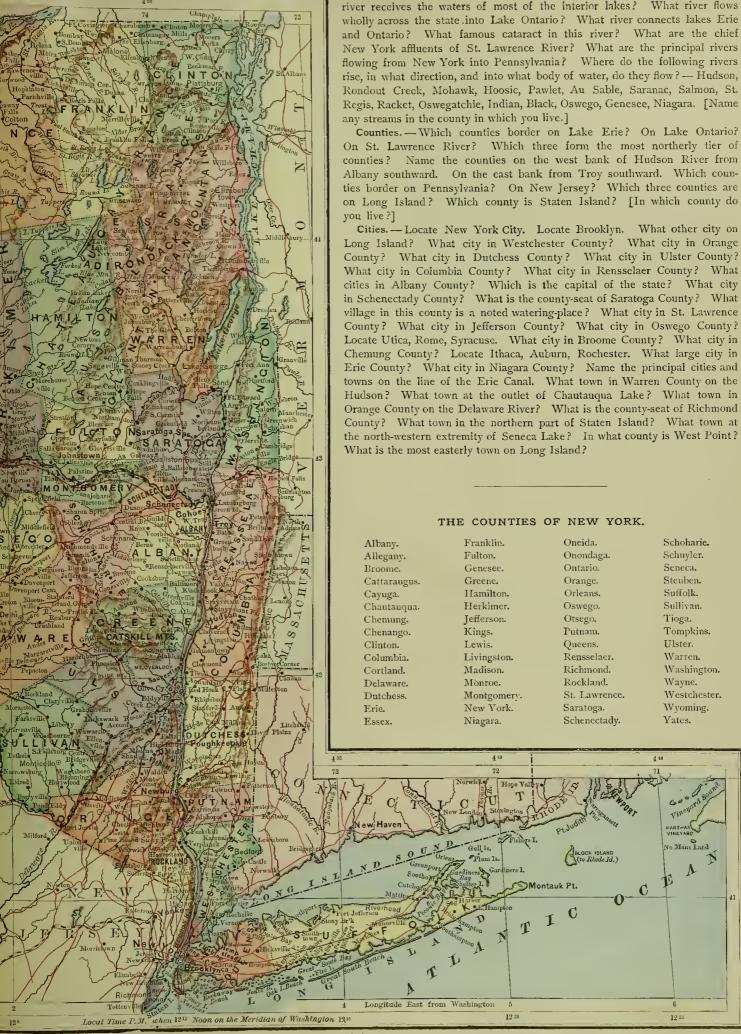
OUESTIONS ON THE MAP.

Position. — What country north of New York? Of what empire does the Dominion of Canada form a part? Ans. Of the British Empire. What bodies of water form the north-western boundary of the state? What partial natural boundaries on the north? On the east? What states east of New York? What states south of New York? With what parallel does the south-western boundary of New York coincide? What large island south of Connecticut belongs to New York? Measure by the scale of miles the greatest length of Long Island. What island south of New York Bay? Through what part of the state does the United States prime meridian pass? When it is noon at Washington, what time is it in the eastern part of Long Island? At New York City? At Niagara Falls?

Surface. — Which section of the state is mountainous? What series of mountain-ranges in the northern part of the state? Name the principal ranges of the Adirondack Mountains. In which range and in which county is Mount Marcy, the highest mountain in the state? What mountains in Greene County? What two ranges south of Catskill Mountains? What mountains near the border of Massachusetts?

Coast.—What body of water between Connecticut and Long Island? What cape at the castern extremity of Long Island? What two bays in the castern part of Long Island? Name the islands east of Gardiners Bay, belonging to New York. What beach off the south-eastern coast of Long Island? What bay north of Great South Beach? Name the beaches west of Great South Beach. On what bay are New York City and Brooklyn situated? What strait connects New York Bay with the Atlantic Ocean? What international boundary passes through lakes Ontario and Eric? Where are the Thousand Islands? To what country do most of these islands belong? What bay on the coast of Jefferson County? What large island in Niagara River?

Lakes and Rivers.—Which of the Great Lakes border on New York? What large lake in the south-western part of the state? Name seven large lakes in the central part of the state. What lakes in Otsego County? In Hamilton County? In St. Lawrence County? In Franklin County? In Essex County? What large lake on the north-eastern border of the state? What lake between Warren and Washington counties? In which county does Hudson River rise? In what direction, and into what body of water, does it flow? What is the principal tributary of Hudson River? Which



NEW YORK.



PHYSICAL VIEW OF NEW YORK.

Randalls, Wards, and Blackwells islands, in the East River, belong to the city, and are the seat of many of its penal, charitable, and reformatory institutions. Bedloes, Governors, and Ellis islands, in New York Bay, are owned by the United States Government. Besides these, may be named Grand and Goat islands in the Niagara River, and the numerous islands in Lake Champlain, Lake George, Lake Ontario, the St. Lawrence River, and those near Long Island.

Lakes. — The region of the Adirondacks abounds in beautiful lakes, some of considerable size. Schroon Lake is noted as a summer resort. Lake George, 36 miles in length, is celebrated for the clearness of its waters and the picturesque beauty of its scenery. The valleys of the Oswego and Genesee rivers contain several lakes, the largest of which are Seneca, Cayuga, and Oneida. Besides these, Otsego, Chautauqua, and the Saranac lakes may be mentioned.

Of the three large lakes on the border of the state, Erie is 255 miles in length, and from 30 to 60 miles in width; Ontario is about 180 miles in length, and 56 miles in extreme breadth; Champlain, a long, narrow sheet of water famed for its beauty, is 126 miles long, and from half a mile to 15 miles wide. About 352 miles of the shores of these lakes are within this state.

Rivers. — The Hudson, 300 miles in length, is the chief river belonging wholly to New York; it is navigable for steamboats to Troy, 151 miles from its mouth. Its main tributary is the Mohawk, 135 miles long, which affords considerable water-power at Cohoes and Little Falls. West Canada Creek, one of its affluents, contains the famed cascades called Trenton Falls. The Oswego receives the waters of most of the interior lakes; and the Genesee, noted for its falls at Rochester, flows through a fertile grain-growing valley. These, with Black River, are affluents of Lake Ontario.

Scenery and Waterfalls. — New York is distinguished for its fine scenery. The banks of the Hudson are world-renowned for their beauty. The shores of Lake George, and its waters studded with nearly two hundred islands, the St. Lawrence and

its Thousand Islands; and the grand expanse and picturesque shores of Lake Champlain, afford scenes of unsurpassed beauty.

Niagara Falls, the grandest cataract in the world, belong in part to New York. Here the water of the Great Lakes west of Ontario is poured over a precipitous cliff about 160 feet high in two immense sheets, called the American and the Horseshoe Falls, separated by Goat Island. The total width is 2,900 feet.

The other falls of any note are the Genesee Falls at Rochester; Kaaterskill Falls in Greene County; Glens Falls, Warren County; Cohoes Falls in the Mohawk; and Trenton Falls, near Utica. Watkins Glen, at the head of Seneca Lake, has several picturesque cascades, and is a place of considerable resort.

Agriculture. — The peculiar character of the soil, abounding in lime, the numerous river-valleys, the climate, and the distribution of moisture, contributing to the general fertility of the soil, have given to this state a leading position for its agricultural products.

More than one-half of the total area of the state (about 16,000,000 acres) is under cultivation. In the highland regions sheep-raising and dairy farming take the lead; in the western valley regions graingrowing is the chief pursuit. Grape-culture is actively carried on in the lake valleys, and in the lower valley of the Hudson. The other chief products are hay, hops, maple-sugar, tobacco, broom-corn, fruit, and, near New York, market vegetables and milk.

Commerce.—This state has the foremost rank in the Union for the extent of its commerce. The great bulk of the grain exported from the United States to foreign countries is shipped from the port of New York, and most of the imports received in return come through the same port. The state has also a vast domestic trade. The exports from the port of New York amount to nearly \$447,000,000 annually, nearly all of which are of domestic product. The amount of imports is considerably in excess of the exports. The coastwise trade is very large, particularly at Buffalo.

Ten customs districts and ports of entry have been established by the United States Government, as follows: Buffalo Creek (port of Buffalo), Cape Vincent, Champlain (Plattsburg), Dunkirk, Genesee (Rochester), New York, Niagara (Suspension Bridge), Oswegatchie (Ogdensburg), Oswego, and Sag Harbor.

Internal Improvements. — In addition to the natural highways of commerce afforded by Lakes Erie, Ontario, and Champlain, and by the Hudson River, the state has a magnificent system of canals and railroads.

Of the former, the longest and most important is the Erie Canal, 352 miles in length, connecting Lake Erie with the head of navigation on the Hudson, and thus forming a cheap and easy route for the products of the great West to the Atlantic seaboard. The Champlain Canal, also belonging to the state, connects West Troy and Whitehall, and is 66 miles long.

Besides these, the Delaware and Hudson Canal, 108 miles of which are in New York, joins the Delaware and Hudson rivers, connecting Honesdale, Penn., with Eddyville, near the mouth of the Rondout Creek. This canal is owned by a private corporation. Several other canals, formerly belonging to the state, have been either abandoned or sold to private corporations.

Of railroads, a network extends over the state, and connects with through lines to Chicago, St. Louis, and San Francisco, thus bringing the Pacific coast and the Mississippi Valley in communication with the port of New York.

The principal railway lines are the New York, Lake Erie and Western, connecting Jersey City and Dunkirk; the New York Central and Hudson River, operating roads on both sides of the Hudson, and connecting New York and Buffalo; and the Delaware, Lackawanna and Western, connecting New York with Buffalo, Utica, and Oswego.

The other most important railroads are the following:-

NAME.	NAME.		
Adirondack. Adirondack. Albany and Susquchanna. Boston, Hoosac Tunnel, and Western. Buffalo and Southwestern. Buffalo. New York, and Philadelphia. Delaware and Hudson Canal Co.'s R. R. Lake Ontario Southern. Newburg, Dutchess, and Connecticut. New York and Canada. New York, Ontario, and Western. New York and Harlem. New York City and Northern.	Ogdensburg and Lake Champlain. Poughkeepsie, Hartford, and Boston. Rensselaer and Saratoga. Rochester and Pittsburg. Rhinebeck and Connecticut. Rome, Watertown, and Ogdensburg. Southern Central. Syracuse, Chenango, and New York. Troy and Boston. Ulster and Delaware. Utica and Black River.		

Besides these, there are on Long Island the following: -

NAME.	*	NAME.
Brooklyn, Bath, and Coney Island. Long Island R. R. and Branches. New York and Brighton Beach.		New York and Coney Island. New York and Sea Beach. New York, Woodhaven, and Rockaway.

There is also a railroad on Staten Island, running along the northern shore, and in the eastern part connecting Vanderbilt Landing with Tottenville. [See map of New York City and Vicinity.

The total number of miles of railroad in the state is about 7,750.

Manufactures. - New York takes the lead in the value of its manufactured products. The following are the most important manufacturing industries: carriages and wagons, cheese, food and food-preparations, furniture, flouring and grist mill products, lead, leather, liquors, musical instruments, printing and publishing, sewing-machines, ship-building, sugar and molasses, and tobacco.

The other most important branches of manufacturing industry are those of agricultural implements, boots and shoes, clothing, cotton and woolen goods, dressed furs, iron, machinery, and paper.

Mining.— Mining and quarrying are carried on to a considerable extent in this state, although not among the most prominent industries. The most extensive iron-mines are found in Essex, Dutchess, Clinton, and Orange counties. The quarries of Ulster County yield the greater portion of stone; but large quantities of marble are quarried in Westchester County. There are valuable lead-mines in St. Lawrence County; and colleges are given in the following summary: copper and lead occur among the Shawangunk Mountains. Limestone is abundant in nearly all parts of the state; and sandstone and bluestone, for flagging, in many of the southern and eastern districts. Beds of gypsum and sandstone are found in the central and western counties.

Fisheries. — The fisheries in this state are of considerable importance, particularly the shad-fisheries on the Hudson, where there is an extensive nursery for these fish a short distance below Albany. There are also fisheries for white-fish at the east end of Lake Ontario; and for blue-fish, mackerel, etc., in the bays of Long Island and the neighboring shores, where, also, the oyster business is extensively carried on, particularly for supplying the markets of New York City.

Mineral Springs. - This state is especially noted for its mineral and medicinal springs. The salt-springs among the North America previous to the famous exploring voyage of rocks known as the "Onondaga Salt Group," extending from the English navigator Henry Hudson, who, in 1609, while in

Schoharie County westward to the Niagara, are exceedingly valuable. The salt-works of the Warsaw district, in the Genesee valley, and those of Onondaga County, the latter owned and worked by the state, are among the most extensive in the world, yielding annually about 6,000,000 bushels of salt. Valuable springs of petroleum occur in Cattaraugus and Chautauqua counties.

The chief medicinal springs are those at Saratoga, Ballston, New Lebanon, Sharon, Avon, Clifton, and Richfield. Of these, Saratoga Springs are the most numerous as well as the most widely famed.

The village named after the last-mentioned springs contains a large number of hotels and boarding-houses, being visited in the summer season by many thousand persons. Sharon Springs, in Schoharie County, noted for its sulphur springs, is also a place of great resort.

Government. — The state constitution vests the executive department of the government in a governor and lieutenantgovernor, elected for three years; a secretary of state, comptroller, treasurer, attorney-general, and state engineer and surveyor, each of whom is elected for two years. The Legislature consists of a senate of thirty-two members, elected for two years, and an assembly of one hundred and twenty-eight members, chosen for one year. The highest court is the court of appeals, composed of a chief justice and six associate judges. Besides this, there are forty-six justices of the supreme court. Three of the eight judicial districts are entitled to five justices; four, to six justices; and the district comprising New York city, to seven justices.

Education. — Ample provision has been made for the full and free education of the people. The common-school system includes more than 11,000 school districts, upward of 31,700 teachers, and affords instruction to more than 1,000,000 pupils. There are eleven normal schools, besides numerous academies and private and parochial schools, in various parts of the state, and the Normal College, in New York City. There are thirty universities, colleges, or other institutions for higher education, affording instruction to nearly 4,000 students, besides many scientific schools, theological seminaries, and other professional schools; and, moreover, institutions for the education of the deaf and dumb, the blind, and the imbecile.

The names and locations of the principal universities and

NAME.	LOCATION.	NAME.	LOCATION.
Alfred University	Alfred.	Manhattan College	New York.
Canisius College	Buffalo.	Rensselaer Polytechnic }	Troy.
Colgate University. College for the Training)	Hamilton.	Institute) St. John's College.	Fordbam.
of Teachers	New York.	St. Lawrence University	Canton.
College of City of New York	New York.	St. Stephen's College .	Annandale.
College of St. Francis Xavier	New York.	Syracuse University .	Syracuse.
Columbia College .	New York.	Union University .	Schenectady.
Cornell University 1	Ithaca. Elmira	University of the City }	New York.
Elmira Female College ¹	Clinton.	University of Rochester	Rochester.
Hamilton College Hobart College	Geneva.	Yassar College 1	Poughkeepsi
Ingham University	Le Roy.	Wells College ¹	Aurora.

¹ Elmira College, Yassar College, and Wells College are for female students exclusively. Cot University admits both sexes. Barnard College is the woman's department of Columbia College

History. - Little, if any thing, was known of this part of

NEW YORK.

the employ of the Dutch, entered the harbor of New York, and discovered the river which now bears his name. In his vessel, called the "Half-Moon," he ascended the river as far as the present site of Albany; and the exploration was continued in boats some ten miles farther up.

The Dutch, in 1614, established a trading-post at the southern end of Manhattan Island, and built a fort on the banks of and each county into townships. There are 32 cities. the Hudson, near Albany. Fort Orange, on the site of that city, was constructed in 1628. The post on Manhattan Island soon expanded to a settlement, to which the Dutch gave the name of New Amsterdam; and to the extensive region which they claimed, stretching as far south as the Delaware, they gave the name of New Netherland.

The same year (1609) in which Hudson ascended the Hudson River, Champlain, a French explorer, discovered Lake Champlain and Lake George, and thus gave the French a basis for their claim to a large part of the territory included in this state.

In 1664 the Dutch at New Amsterdam were obliged to surrender the town to an English fleet sent out by the Duke of York, to whom his brother, King Charles II., had granted the whole territory. This led to the name New York. With the exception of a few months in 1673, the English held possession of it till the Revolution.

About the middle of the next century, disputes sprang up between the English and the French regarding their American possessions; and a war ensued, known in history as the French and Indian war, for the Indians mostly took sides with the French. During this struggle the region in the vicinity of Lakes George and Champlain, and the upper course of the Hudson, became the scene of many interesting events. The forts at Crown Point and Ticonderoga on the banks of Lake Champlain, and Fort William Henry at the head of Lake George, were held by the French; but, by a series of brilliant victories, they were regained by the English; and at the close of the war, in 1763, the French were compelled to relinquish their claims.

During the Revolution, New York was the scene of many stirring and important events. By a bold stroke, Ethan Allen and Benedict Arnold captured Crown Point and Ticonderoga in 1775. The disastrous battle of Long Island, in 1776, gave the English possession of New York City; but the next year the glorious victories gained over Burgoyne near Saratoga, under Gen. Gates, really decided the struggle. Many posts on the Hudson became famous during this war, - Fort Washington in New York, Stony Point, captured by Wayne in 1779, West Point, memorable for the meditated treason of Arnold in 1780, and Newburg, the site of Washington's headquarters, and also noted as the scene of the closing events of the great struggle and the disbandment of the army. The city of New York was evacuated in 1783. This city was subsequently the capital of the United States, and there Washington was inaugurated in 1789.

During the war of 1812 many stirring events occurred along the frontier; and an important victory was gained over a British fleet on Lake Champlain in 1814.

"Clermont."

The construction of the Erie Canal, proposed by Gouverneur Morris in 1800, and subsequently urged by DeWitt Clinton. was finished in 1825. This at once became a great channel of trade and emigration, and has contributed largely to the rapid growth and prosperity of the state.

Political Divisions. — The state is divided into 60 counties,

New York City, the metropolis of the state, is the business and financial emporium of the New World. In commercial importance it is second only to London. It includes Manhattan Island and the mainland as far north as Yonkers, and eastward to the Bronx River (which separates it from Westchester County), together with several islands in the East River. It covers a total area of 41½ square miles, somewhat more than one-half being comprised in Manhattan Island. The population by the census of 1890 was 1,515,301.

Within this city, Brooklyn, and other neighboring cities closely connected with New York, and forming with it one compact business center, there is a population of about 2,500,000.

Steam ferries connect the city with Brooklyn at several points, with Long Island City, Jersey City, Hoboken, and Staten Island; and a magnificent suspension bridge across the East River brings the neighboring cities of New York and Brooklyn into still closer connection. This bridge rests on two massive stone piers 278 feet high, and is supported by four immense steel-wire cables, each sixteen inches in diameter. The total length of the bridge is 6,000 feet, and its total cost is over \$18,000,000.

The elevated steam railways, affording rapid communication between the northern and southern extremities of the island, constitute a striking feature; and besides these there are surface railroads intersecting the city in all directions.

The commercial advantages of New York are very great, with its natural highways of trade, its magnificent harbor, and its 25 miles of water-front crowded with the vessels of all

More than one half of the foreign trade of the Union is carried on at this port, besides a vast internal and coasting trade. The greater part of the immigrants to the United States land in this city. The great railroad lines which center here bring the city into direct communication with all parts of the Union and the British Provinces.

In the value of its manufactures, it is unsurpassed by any other city in the Union. The leading items are clothing, refined sugar, furniture, and printing, and, next to these, boots and shoes, flouring-mill products, sewing-machines, iron-castings, lead-pipe, jewelry, and tobacco and cigars.

New York is widely famed for the number and magnificence of its public buildings. There are many hospitals and charitable institutions, libraries having an aggregate of 700,000 volumes, and buildings devoted to science and art, as Cooper Institute, the National Academy of Design, the Metropolitan Museum of Art, and the American Museum of Natural History.

There are numerous public squares and parks, chief among the latter being the Central Park, which is one of the finest of the kind in the world. Within the park are several great reser-Steamboat navigation was commenced in 1807 by Robert voirs, supplied with water from Croton River, 30 miles distant, by Fulton, who that year ascended the Hudson River in the means of aqueducts. From the reservoirs the water is distributed to the city.

NEW YORK.

Brooklyn (population 806,343), the second city in the state, and the Cemetery of the Evergreens are also of great extent and the fourth in the Union, holds a high rank for its commer- and beauty. cial importance and manufacturing industries. It has an extensive water-front, occupied by piers, docks, warehouses, and institutions of learning, among which may be distinguished shipyards.

The Atlantic Dock, a massive structure completed in 1844, adds very greatly to the commercial advantages of the city. It is a huge basin in the form of a parallelogram, enclosing an area of 40 acres, and deep enough to accommodate the largest vessels. Besides this, there are the Brooklyn and Eric basins, covering together a space of about 100 acres.

Brooklyn affords a place of residence for many persons doing business in New York, and is noted for its beautiful streets and elegant mansions. There are also many fine public buildings and a large number of churches. This city has been, on that account, styled the "City of Churches."

Prospect Park, which has a commanding situation overlooking the harbor of New York, is an extensive pleasure-ground, beautifully laid out, and covering 550 acres.

There are also several cemeteries, chief among which is Greenwood, widely celebrated for its beautiful views, tasteful In the suburbs are the most extensive fruit and ornamental tree nurseries cultivation and costly monuments. Cypress Hills Cemetery in the world. It is the seat of Rochester University, of Rochester Theo-

This city has a fine system of public schools and many higher the Packer Collegiate Institute, the Polytechnic Institute, and the Adelphi Academy.

Other Cities.— In addition to New York and Brooklyn, the following are the other principal cities of the State:-

Buffalo, a port of entry, and county seat of Erie County, has a splendid water-front on Lake Erie and the Niagara River. Its harbor, formed partly by Buffalo River, and protected by extensive breakwaters, is one of the finest on the lakes. The chief characteristics of Buffalo are its healthful and pleasant situation, handsome parks, elegant private mansions, fine public buildings, and charitable institutions, excellent schools, and abundant supply of water from the Niagara, its extensive manufactures of iron, copper and brass goods, agricultural implements, machinery, and flouring-mill products, and its grain trade facilitated by its numerous large

Rochester is a port of entry at the Falls of the Genesee River, four miles from Lake Ontario, and at the junction of several important lines of railroad. It has immense water-power, and large manufacturing and milling interests, and is the center of trade for the fertile Genesee Valley.

> logical Seminary, of the State Industrial School, an important reformatory, and a State Hospital for the Insane.

Albany, on the west bank of the Hudson River, 145 miles from New York, is the capital of the state, and many of the people are descendants of the Dutch Patroons. It is the terminus of the Erie Canal, and has a large trade in lumber, extensive iron and hollow-ware foundries, factories of carriages and sleighs, and large breweries. It is the seat of the Geological and Agricultural Hall, the State Library, the Dudley Observatory, and the State Normal School. The capitol is, next to the federal capitol in Washington, the largest and most splendid edifice of the kind in America.

Syracuse, at the junction of the New York Central and numerous other railroads, is noted for its immense salt-works and its varied manufactures of iron and steel, agricultural implements, machinery, clothing, shoes and carriages. It is the seat of Syracusc University and of the New York Asylum for Idiots.

Troy, on the left bank of the Hudson, six miles above Albany, is the southern terminus of the Champlain Canal and an important railroad center. It has immense water-power, extensive iron and steel works and laundries, and is largely engaged in the manufacture of shirts, collars and cuffs, cars, and mathematical instruments. It is the scat of the Rensselaer Polytechnic Institute, one of the finest scientific schools in the

Utica, on the Mohawk River, is an important railroad center, and has great canal facilities. It manufactures furnaces, clothing, and shoes, and has a large cheese trade. It is the seat of the State Lunatic Asylum, and other charitable institutions.

Binghamton is at the confluence of the Chenango and Susquehanna rivers. It is largely engaged in the manufacture of boots and shoes, cigars, steam-engines, farming implements, etc., and has a large coal trade.

Yonkers is on the east bank of the Hudson, north of the city of New York, and opposite the Palisades: It carries on the manufacture of felt hats, robes, and cloths, sewing-silk and ribbons, carpets, lead pencils, etc. It is the agreeable place of residence of many New York business men.

Elmira is situated on the Chemung River, near the mouth of Newtown Creek, and is an important rail-



MAP OF NEW YORK CITY AND VICINITY.

road and commercial city. It is noted for its abundant water-power and for its rolling-mills, and other iron-works, flour-mills, breweries, tanneries, etc. Here is the seat of Elmira Female College.

Long Island City is opposite New York, with which it is connected by steam-ferries, and is the terminus of all the Long Island steam-railroads. It is a depot for the storage and shipment of kerosene oil, and has oilrefineries, lumber-yards, terra cotta works, and several large piano factories.

Auburn is near Owasco Lake, which supplies abundant water-power. It manufactures agricultural implements, and cotton and woolen fabrics, and has valuable limestone quarries. It is the seat of the Auburn Theological Seminary, and of one of the three state prisons.

Newburg, on the west bank of the Hudson, has an active river commerce in lumber and farming produce, and carries on manufacturing industry. It is also noted for its Revolutionary associations, Washington's headquarters having been located there for a considerable time.

Cohoes is at the confluence of the Mohawk and Hudson rivers, and near the junction of the Erie and Champlain canals. The Mohawk affords immense water-power, and the city is noted for its extensive manufacture of cotton goods, also of hosiery and knit goods, and for its rolling-mills, ax-factories, and manufactory of pins and knitting-needles.

Poughkeepsie, on the east bank of the Hudson, has an active river trade, large manufacturing interests, and extensive iron-furnaces and foundries. It is the seat of Vassar College, and other important educational institutions. A fine railroad bridge crosses the Hudson River at Poughkeepsie.

Oswego is a port of entry on Lake Ontario, at the mouth of Oswego River. This city has a fine harbor, protected by jetties and a breakwater, with several miles of wharfage. It is noted for its coal trade with Canada, its starch factories and flouring-mills, and its iron-works. It is the seat of one of the state normal schools.

Kingston, on the west bank of the Hudson River, is near the terminus (Eddyville) of the Delaware and Hudson Canal. It has a large river traffic, and ships great quantities of coal brought by the canal. It is also the center of the ice industry, and of an immense business in flagging and other varieties of bluestone, hydraulic cement, and bricks.

Schenectady, on the south bank of the Mohawk River, is noted for its locomotive works, the Edison general electrical works, broom manufactories, knitting-mills, etc. It is the seat of Union University.

Amsterdam, on the Mohawk River, is noted for its knitting-mills, and for its extensive manufacture of carpets, brooms, linseed oil, and metallic coffins.

Jamestown, at the outlet of Chautauqua Lake, in the midst of a rich farming and dairy country, is connected by steamers with Mayville, and is a favorite summer resort. There are various factories, machine shops, and foundries.

Lockport is on the Erie Canal, where it descends 60 feet by five double locks. Immense water-power is distributed from the canal to the manufactories by means of a hydraulic canal three-fourths of a mile long. The chief manufactures are flour, lumber, and cotton and woolen goods.

Rome, on the Mohawk River, is noted for its Iocomotive and car-works, rolling and puddling mills, foundries, knitting mills, and sash, blind, and Malone in Franklin County, beautifully situplaning mills. It is the site of Fort Stanwix.

Minor Cities and Villages.— The characteristics of the minor cities and principal villages are stated below:

- Large stone quarries; saw and planing mills, fruit evaporators, etc.
- ${f Batavia-in}$ Genesee County, on Tonawanda Creek. Seat of State Institution for Blind. Canandaigua-in Octario County, on Canan-
- daigua Lake. Beautiful situation; popular pleasure resort.
- Catskill in Greene County, on the west bank of the Hudson. The landing-place for visitors to the Catskill Mountains.
- College Point in Queens County, on Long Island Sound. Population largely Ger-
- Albion in Orleans County, on the Eric Canal. | Corning in Steuben County, on the Chemung River. The coal and lumber trade is very extensive; manufactures glassware.
 - Cortland io Cortland County. An important railroad center; extensive wagon and carriage factories; wire mills, etc.
 - Dunkirk-io Chautauqua County, on Lake Erie. It is a port of entry, has an excellent harbor; also extensive iron works, machine shops, etc.
 - Edgewater in Richmond County, is a beauti ful village of residence for New York busi
 - man. Breweries, rubber manufactures, etc. Flushing -- in Queen's County, on Flushing Bay.

- Elegant residences; extensive gardens and nurseries; numerous schools.
- extremity of Seneca Lake. Beautiful situation; extensive nurseries and various manufactories; seat of Hobart College, and the State Agricultural Experiment Station.
- Glens Falls -in Warren County, on the upper Hudson, where it descends fifty feet. Extensive milling business and various manufactures; in the vicinity of quarries of black marble.
- Gloversville in Fulton County, has extensive manufactures of gloves and mittens, leather goods, and various other articles.
- Greenbush in Reasselaer County, on the east bank of the Hudson. A railroad center; saw and flour mills and blast furnace; lumber trade.
- Haverstraw io Rockland County, on the Hudson River, is noted for its extensive brick works.
- Hempstead in Queen's County, twenty-one miles east of New York City. Local trade; residential village.
- Hoosick Falls in Reasselaer County, on the Hoosick River. It has a largely Irish population; various manufactories, etc.
- Hornellsville in Steuben County, on Canisteo River, is a railroad center. It manufactures braided wire for fences, reapers and mowers, leather, etc., and has various factories.
- Hudson in Columbia County, on the Hudson River. It manufactures knit underwear steam-engines, and paper car-wheels.
- Ithaca in Tompkios County, near the head of Cayuga Lake, is an important railroad center, with quite an active commerce. It is a coal depot and has various manufactures.
- Cornell University is located here.

 Jamaica—in Queen's County. Pleasant residential village.
- Johnstown a prosperous village in Fulton County, on a branch of the Mohawk River. Glove and mitten factories; skin and leather dressing establishments.
- Lansingburg in Rensselaer County, on the east bank of the Hudson, opposite the mouth of the Mobawk and adjoining the city of Troy. Brush factories; oil-cloth and other manufactories.
- Little Falls -in Herkimer County, on the Mobawk River, where it falls forty-two feet. Cheese trade; paper, flouring, and cotton mills; woolen factories; knitting-mills.
- Lyons in Wayne County, on the Eric Canal. Trade in tobacco, grain, and fruit; peppermint distilleries.
- ated in the foot-bills of the Adirondack Mountains. Tailoring and the manufacture of men's clothing. The seat of the State Deaf Mute Institution.
- Medina in Orleans County. Extensive sand stone quarries; excellent water-power and various thriving manufactories; fine fruit market.
- Middletown in Orange County, at the junction of the Erie, the New York and Oswego Midland, and the New Jersey Midland Railroads, and in the center of a rich stockraising and dairy district. There are numerous manufactories, and fine public buildings.
- Mount Vernon-in Westchester County, a suburb of New York City, and the residence of many New Vork business men.
- New Brighton in Richmond County, on the north-east shore of Staten fsland. Hand-

- some residences; beautiful situation, commanding view of New York Bay.
- Geneva in Ontario County, at the north-west New Rochelle in Westchester County, near Long Island Sound, a pleasant residential village.
 - Niagara Falls -- in Niagara County. An important railroad center and a growing manufacturing village; a resort of visitors to the cataract of Niagara.
 - Norwich-in Chenango County, on the Chenango River. A railroad center; various manufactures; large local trade.
 - Ogdensburg a port of entry on the St. Lawrence River, has extensive lake and Canadian commerce in grain, flour, and iumber. Its abundant water-power supplies numerous flouring-mills and saw-mills.
 - Olean-in Cattaraugus County, oo the Alleghany River. An important railroad center.
 - Oneida in Madison County. Situated in the midst of a hon-producing country. Railroad center; important shipping point; manufactures coffins: various other manufactures.
 - Oneonta-in Otsego County, on the Susquehanna River. Railroad machine shops; various manufactories; one of the state normal schools located bere.
 - Peekskill-in Westchester County, on the east bank of the Audson River. Beautiful situation; river trade; iron foundries; stove foundries.
 - Plattsburg in Clinton County, a port of entry on Lake Champlain. Lumber and iron business; various manufactures; state normal school.
 - Port Chester in Westchester Conney, on the New York and New Haven Railroad. Residential town.
 - Port Jervis in Orange County, on the Delaware River, at the mouth of the Nevisink, and at the intersection of the boundaries of New Jersey, New York, and Pennsylvania. Beautiful mountain scenery; railroad shops; numerous manufactories; a place of summer resort.
 - Port Richmond -- in Richmond County, is a pleasant village on high ground, forming a delightful and healthful place of residence for the business men of New York City.
 - Saratoga Springs -- in Saratoga County, at the junction of three railroads. Mineral springs; a very fashionable summer resort; many large hotels, boarding-houses, and sanitariums; bottling and exportation of mineral water.
 - Seneca Falls in Seneca County, on the outlet of Seneca Lake. Abundant waterpower; various manufactures. Business center of a large and intelligent section.
 - Sing Sing in Westchester County, on the east bank of the Hudson River - Tappan Bay. Beautiful situation; various manufactures; several fine military schools; seat of a state prison.
 - Tonawanda-in Erie County, on the Ningara River and Erie Canal. An important railroad center; large lumber interests.
 - Watertown-in Jefferson County, is on both banks of the Black River. It has abundant water-power; excellent railroad facilities; and manufactories of paper, steamengines, and railroad supplies, farming implements, wagons and carriages, and all kinds of metal-work.
 - West Troy -in Albany County, on the west bank of the Hudson River, opposite Troy. Large lumber trade; seat of Watervliet National Arsenal; various manufactories.

